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HEMIST and DRUGGIST SEPTEMBER 14, 1946

The CHEMIST AND DRUGGIST

for RETAILER - WHOLESALER - MANUFACTURER

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L. CXLVI SEPTEMBER 14, 1946 Annual Subscription (with Diary) 25/-. Single copies 9d.

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,, ,, 100	18/–	,,
,, ,, 500	81/–	,,

†'EPHYNAL' Tablets 20 mg.	Old Price	New Price	
Bottles of 20	10/–	8/9	Exempt
,, ,, 100	40/–	36/–	,,

***'EPHYNAL' Ampoules 30 mg.**		
Boxes of 6	7/6	10d.

Prices of 'EPHYNAL' Tablets 3 mg. remain unchanged.

'BEFLAVIT' Ampoules 10 mg.	Old Price	New Price	
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* ,, ,, 50	—	63/–	7/–

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and
Dinneford's
MAGNESIA TABLETS

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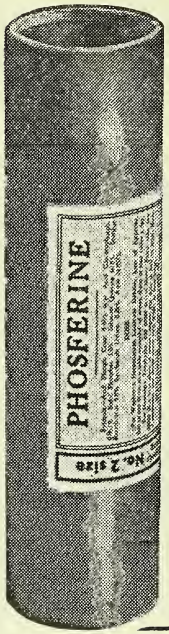

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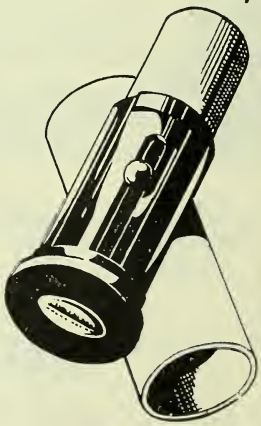

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STERLING

VOLUME

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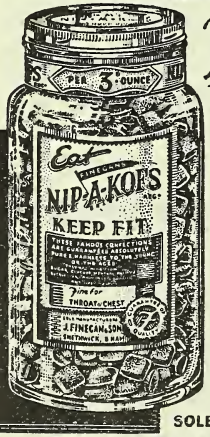

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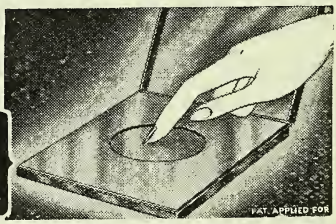

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Now that many doctors are returning to civilian practice, one of the major duties of the pharmacist should be supplying his medical clients with information on modern drugs. To assist the pharmacist in this connection we have prepared a number of booklets dealing with a range of products now regularly used in clinical practice. These booklets include information on the following products :—

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DIENOESTROL AND STILBOESTROL
METHYL THIOURACIL AND THIOURACIL
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SULPHAGUANIDINE; SULPHATHIAZOLE
X-RAY CONTRAST MEDIA
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SKIADIN-VISCOUS AND FLUID

Supplies of these booklets will gladly be forwarded on request in the hope that their distribution will assist in cementing a relationship of mutual confidence and goodwill between the pharmaceutical and medical professions.

N.B. *Copies of the latest edition of the Price List of « W B » MEDICAL PRODUCTS are now available on application*

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4. We believe that in the long run it is in our interest to support the wholesaler because he serves your interest.

We ask you therefore to place your order for toothbrushes with your usual wholesaler. Supplies are still short, but all wholesalers receive a regular allocation and they are co-operating wholeheartedly with us to ensure that every retailer gets his fair and equitable share of the limited quantity available.

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ASTHMA REMEDY

Price 2/2 per Tin (inc. tax)
Wholesale 18/- per Doz., plus 3/- per Doz. Tax
Packed in half dozens

Well advertised and world famous
A sound selling line for every Chemist

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summarising post-war opportunities, special notices, new packaging and new products

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WE THANK YOU

for your patient co-operation and appreciation of our difficulties in maintaining an equal distribution of supplies. As soon as restrictions are eased, we will assure you of our best possible service.

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A unique combination giving complete and PERMANENT protection from MOTHS and household disinfestation of other insects

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(The Anti-Moth Equation)

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were in everybody's mouth. It is too soon to say the same of our famous

GUMS & LOZENGES

but until that happy day arrives supplies are being distributed as equitably as possible.

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Packed in 1 Dozen - Show Outers

Retail 1/3 - Trade 9/- dozen plus $\frac{1}{6}$ Tax

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A reputation for reliability . . .

"Sentinel"

ALL COTTON WOOL

SANI-TOWELS

"with the soft seamless knitted covering"

SIZES 1, 2, 3 AND MATERNITY also **'KUMFEX'** SOLUBLE (all with loop ends)

★*Supplies unfortunately restricted at present*

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Vitamin "A" 3,500 International units; Vitamin "D" 500 International units per fluid oz.

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Please ask your customers for empty 'Kepler' bottles and then return to us so that we can maintain supplies—a small card for your counter will be sent with your new season's order.

TWO SIZES 3/3 AND 5/9

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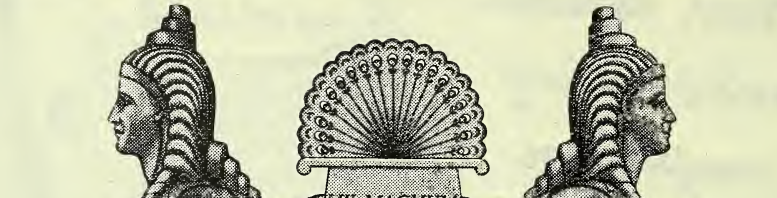

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ADSORBENT OF ALIMENTARY TOXINS

CARBACT

BRAND

ACTIVATED CHARCOAL TABLETS

FORMULA:

Activated Charcoal	3 grains
Bismuth Tribromphenate	$1\frac{1}{8}$ grains
Ext. Rhei Sicc.	$\frac{3}{8}$ grain
Excipient q.s. to	$7\frac{1}{2}$ grains

INDICATIONS:

All conditions due to alimentary intoxication, whether bacterial or chemical
Severe gastro-intestinal disturbances
Flatulent dyspepsia
Intestinal distension
Poisoning arising from food, vegetable and inorganic poisons
Gastro-enteritis
Diarrhœa and dysentery

Available in packets of 100 tablets

RAPID BLOOD REGENERATION

FERRAEMIA

BRAND *TABLETS*

FOR ANÆMIA

FORMULA:

Ferrous Sulp. Exsicc.	$2\frac{3}{4}$ grains
Dried Yeast	2 grains
Copper Sulphate	$\frac{1}{100}$ grain
Manganese Hypophos.	$\frac{1}{32}$ grain
Excipient	$\frac{5}{8}$ grain
Chocolate coating q.s. to	$8\frac{1}{2}$ grains

INDICATIONS:

Hæmorrhagic Anæmia, Acute and Chronic
Anæmia of Pregnancy
Nutritional Anæmia
Idiopathic Hypochromic Anæmia
As a tonic during convalescence and debilitated conditions

Available in bottles of 60 tablets

Manufactured in England by

WILCOX, JOZEAU & CO. LTD.

74-77, White Lion Street, London, N.1, and at 19, Temple Bar, Dublin

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CHEMIST AND DRUGGIST
For RETAILER — WHOLESALER — MANUFACTURER
Published Weekly at
28 ESSEX STREET, STRAND, LONDON, W.C.2
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NEWS OF THE WEEK

Dammar Control Relaxed.—Under a oard of Trade Order (S.R. & O. 1946, o. 1451), the purchase and use of gum ammar were released from control on Sep- ember 1. Copies of the Order may be btained from H.M. Stationery Office, Lon- on, W.C.2, price one penny.

Quinine Restrictions Continue.—The linistry of Supply states that there is no ntention at present of removing or easing e restrictions on the supply of quinine. he position is, in fact, more difficult now han at any time previously. No quinine coming into this country from Java owing argely to the political difficulties in ndonesia.

Export Exhibition Plans.—An exhibi- ion of British goods for export is to take place at the London Exhibition Centre, New Coventry Street, London, W.1, from November 12 to November 23. Admission will be by invitation only. Manufacturers wishing to take space at the exhibition hould communicate with Mr. L. M. Fisher controller and organiser), at the London Exhibition Centre. (Telephone: Gerrard 5656, extension 238).

Retail Sales Decline.—The pause in the upward trend of retail trade noted for June was confirmed by the July index figure issued by the Board of Trade. For non-food merchandise the index number for July was 13 per cent. below that recorded for May and had fallen back almost to the figure for March. Stocks of non-food merchandise remained at the level reached at the end of June. Current stock figures show an increase for non-food items of 17½ per cent., compared with a year earlier.

Anglo-Soviet Commercial Relations.—As the result of discussions between the Board of Trade and the Soviet Trade Delegation, agreement has been reached on certain outstanding problems relating to the supply of large quantities of civilian goods to the U.S.S.R., which have been manufactured in this country under war-time supply agreements. The agreement will prepare the way for further discussions on the subject of the wider development of Anglo-Russian trade.

Chesterfield Staff Outing.—The staff and friends of A. Greaves & Son, chemists and druggists, Market Place, Chesterfield, forming a party of twenty-six, held an outing to Skegness, by bus, recently.

Soap from Herring Oil.—A factory for the production of oil for soap manufacture from surplus herrings is to be opened at Hull in October. It is likely to be followed by another factory in London, according to a statement by the Ministry of Food.

Turkish Pharmaceutical Exhibition.—An international pharmaceutical exhibition is to be held at Ankara, Turkey, on October 21-24. Inquiries should be addressed to Turkiye Tip Encumeni, Baskanligi, Etibba Odasi, Cataloglu, Istanbul.

Staff Dinner.—An evening's entertainment for the staff of Picot, Ltd., perfumers, Hammersmith Road, London, W.6, was organised recently when the annual staff dinner was held at the Cumberland Hotel, London, W.1, followed by a visit to the London Palladium theatre.

Pharmacists Decontrolled.—Under an Order issued by the Minister of Labour, and operative from September 1, the engagement of persons for employment as pharmacists has been freed from control. Copies of the Order (S.R. & O., 1946, No. 1278) may be obtained from H.M. Stationery Office, price one penny.

P.A.T.A. Jubilee Dinner.—Members of the Proprietary Articles Trade Association who wish to attend the Association's golden jubilee celebration dinner, to be held at the Dorchester Hotel, London, on October 10, are asked to make early application for tickets, price £2 2s. (inclusive of table wine), to the Secretary, P.A.T.A., 43 Gordon Square, London, W.C.1.

London Dentists Refuse Insurance Patients.—Dental practitioners in the London boroughs of Stepney, Poplar, Finchley, Chingford and Walthamstow have decided not to accept any further National Health Insurance patients, according to a statement made by Mr. J. W. Gilbert (chairman, London Regional Dental Committee). Free treatment will be given to necessitous persons to relieve pain.

German Technical Inquiries.—A special technical inquiry bureau is being established under the auspices of the British Intelligence Objectives Subcommittee. The service has been in operation since September 1, and inquiries about German technical processes, etc., covered in the B.I.O.S. reports that have been published by H.M. Stationery Office, together with requests for German technical information, may be directed to the Information Section B.I.O.S., 37 Bryanston Square, London W.1.

Membership of Union Urged.—Dr. Clitherow, M.P., M.P.S., in an address on the proposed National Health Service, to the Plymouth Branch of the Pharmaceutical Society, recently, stated that in spite of new health centres most of the dispensing would be done in the fourteen thousand conveniently placed chemists' shops. He urged all chemists present to join the "registered pharmacists' union," a comprehensive pharmaceutical trade union which he was sponsoring, as by that means, he said, chemists in all branches of the profession would be able to speak with a united voice in negotiations with the Government.

Trade Union and N.H.S.—The national advisory committee of the Association of Pharmaceutical Employees at a recent meeting considered employee representation on bodies to be set up under the pharmaceutical provisions of the National Health Service and decided to press: (a) That the Minister of Health should ensure adequate employee representation on local Pharmaceutical Committees; (b) that of the members appointed by the local Pharmaceutical Committees to the Executive Councils, one should be an employee-pharmacist; and (c) that the Standing Advisory Committee for the pharmaceutical service should include adequate employee representation, appointed after consultation with the trade unions concerned.

Proposed Presentation.—In recognition of the seventeen years' service of Mr. G. C. Crummack as secretary of the Leeds Branch of the Pharmaceutical Society, the Branch is proposing to make a presentation to him at its annual dinner and dance to be held in Leeds on November 13. Mr. Crummack, an original member of the council of the Branch, is a past-chairman and the chairman-elect. He was joint secretary to the British Pharmaceutical Conference local committees in 1934, and has taken an active interest in Branch social functions, being responsible, among other things, for establishing its golf club in 1928. For many years he has acted as advisor to local students and apprentices. Friends of Mr. Crummack in other areas are invited to send contributions towards the presentation, which should be addressed to the treasurer, Mr. A. L. Peters, G.C.C. Fund, 384 Harrogate Road, Leeds.

Further Appeal to Scottish Pharmacists.—A strongly worded warning and appeal has been sent out to pharmacists in Scotland by the chairman of the Pharmaceutical Standing Committee (Scotland). His letter is in the following terms:— "In June I addressed to all panel chemists an urgent and personal appeal. To those chemists who have replied, I now send my best thanks. To those who have not replied I send, in all seriousness, this additional warning. The replies to hand are inadequate for the purpose we had in mind. No doubt there are still some returns which have not been completed, but that will leave many chemists who have ignored the urgent personal appeal. Perhaps the following facts might induce the delinquents to come into line. The present prices charged for private dispensing are the result of many years of competition. The scale may vary in different shops and in different areas, but they are all economic figures, the result of open competition. There are carefully prepared tables showing the average profit and the average dispensing fees paid on prescriptions priced according to the N.H.I. Tariff, but we have no statistics which show the average profit or the average dispensing fee charged for private dispensing. We are not suggesting that it is possible to retain the same simple methods, the minimum flat rates and so on, used in pricing private dispensing, but your Committee should be placed in a position to insist that prices which have survived years of competition should be advanced as a negotiating factor during the inquiry which is anticipated. We are advised that our claim would be more effective if we could table facts and figures to illustrate the average dispensing fee obtained in open competition in comparison with the prices laid down in the N.H.I. Tariff. It will be realised that findings based on figures from a few chemists may be open to suspicion. The foundations must be broad, from many chemists and from all areas. Lack of information now may mean a serious loss to you for many years to come. With these facts before you we feel sure you will do everything possible to help us to prepare a satisfactory case. We know this is a difficult time for you to provide figures, but the urgency is great."

IRISH NEWS

Chemist's Shop Damaged.—A steam roller recently crashed through the plate-glass window into the pharmacy of Mr. S. Leavy, Market Square, Castleblaney, co. Monaghan. Mr. S. McArdle, an assistant, who was in the shop at the time, had a narrow escape.

Shops Act Amendment.—Proposals for a Bill to amend the Shops Act (Northern Ireland), 1946, by annulling the early-closing clauses, were considered at a recent meeting of small shopkeepers organised in Belfast by the Northern Ireland Mixed Traders' Association. It is intended that a private member shall be asked to introduce the Bill when the Northern House of Commons resumes.

Belfast Health Centres Proposed.—A scheme for establishing health centres in Belfast is proposed by the city medical superintendent officer of health (Dr. S. Barron) in a report to the appropriate committees of the Belfast Corporation. The scheme comprises a major health centre costing £20,000, and three minor centres, each costing £7,000, to be established in each of the city's four main divisions. Establishment of a bacteriological laboratory is also proposed. The total cost of the scheme would be £164,000.

Eire Patent Applications.—The number of patent applications made in Eire during the year ended March 31, 1946, was 573, according to a report by the Controller of Industrial and Commercial Property. Of these, 131 were from Eire, 322 from Great Britain and Northern Ireland, and twenty-nine from the United States. Increased activity was evident in patents covering synthetic drugs and organic chemicals. Trade mark applications totalled 789, of which 185 were from Eire, 384 from Great Britain and Northern Ireland, and 118 from the United States.

Penicillin Production in Eire.—Plans for establishing a factory in Eire for the large-scale production of penicillin have been the subject of recent discussions between representatives of an American firm and the Eire Department of Local Government and Public Health. It is understood that manufacturing plant would be available from the United States. Moderate quantities of penicillin are already produced in Eire, and large quantities are available from Great Britain. Doubts have been expressed by Dublin chemists whether large scale production in Eire would prove economic or whether present sources are not more suitable.

BIRTHS

COOMBS.—On August 30, Daisy, the wife of C. J. Coombs, 418 Staines Road, Bedfont, Middlesex, of a son (Howard James).

TYRELL.—At University College Hospital, London, on September 6, Mary, the wife of John J. Tyrell, M.P.S., 23 Long Deacon Road, Chingford, London, E.4, of a daughter (Margaret Frances).

MARRIAGES

DICKSON-PORTEOUS. — At Paisley on September 5, James Dickson, M.P.S., 14 Lanfine Road, Paisley, to Marion Cooper, Glenavon, North Road, Bellshill.

MCTAGGART—CRUICKSHANK.—At Aberdeen, recently, Ian Anderson McTaggart, Manchester, to Janet Helen Cruickshank, M.P.S., daughter of Mr. George M. Cruickshank, M.P.S., J.P., 4 High Street, Turriff, Aberdeen.

DEATHS

APPLEBY.—At the Beverley Emergency Hospital, on August 26, Mr. Godfrey Vernon Appleby, M.P.S., 68 Quay Road, Bridlington, Yorks. Mr. Appleby qualified in 1933.

BROWN.—On September 6, Mr. G. Watson Brown, M.P.S., 153 East High Street, Forfar. Mr. Brown served his apprenticeship in Forfar and was for a time with Boots, Ltd., before opening a business on his own account at Leith, later transferring to Bridge of Allan. He returned to Forfar about fourteen years ago, when he acquired the business at East High Street. He is survived by his widow and two sons.

CLEGG.—On August 16, Mr. Thomas Cooper Clegg, M.P.S., Eastoft, Normanby Road, South Bank, Middlesbrough, aged sixty-nine. Mr. Clegg was the manager of the Devonshire Road pharmacy of the Middlesbrough Co-operative Society, Ltd.

GILMOUR.—At 27 Townsend Crescent, Kirkcaldy, on September 4, Mrs. Lilias Gibson Watson Gilmour, 76 Chalmers Street, Dunfermline, widow of the late Mr. David Gilmour, Ph.C.

HILL.—On August 28, Mr. Gerard Robert Hill, C.B., High Hall, Thornton-le-Dale, Pickering, Yorks, aged seventy-four. Mr. Hill was chairman of the Statutory Committee of the Pharmaceutical Society from 1939 until March 1946, when he was compelled to resign owing to ill-health. Called to the Bar in 1899, Mr. Hill was in the Judge Advocate-General's office from 1918-20. From 1921-29 he was in the legal branch of the Ministry of Health, and from 1930-37 was Parliamentary counsel to the Treasury. He was created a C.B. in 1935.

MCFADZEAN.—On August 16, Mr. John McFadzean, High Street, Dulverton, Somerset, aged seventy-eight. Mr. McFadzean qualified as a chemist and druggist in 1892.

ROGERS.—On August 7, Mr. Eric John Rogers, M.P.S., 262 Slade Road, Erdington, Birmingham. Mr. Rogers qualified in 1943.

WATSON.—On August 26, Mr. Montague Thomas Watson, M.P.S., Rowcroft Pharmacy, Stroud, Glos, aged seventy.

WILLIAMS.—At Clovelly, Holywell, on September 4, Mr. Edward Neville Williams, M.P.S., The Medical Hall, High Street, Holywell, Flints, aged fifty-eight.

WOODWARD.—Suddenly, on September 4, Mr. Thomas Henry Woodward, M.P.S., Tresco, Fydell Rowley Estate, Boston, Lincs, aged seventy-eight. Mr. Woodward retired in 1939, after carrying on business as a chemist and druggist in West Street, Boston, for thirty-seven years. He collapsed and died while acting as locum in the pharmacy of his friend, Mr. J. W. Sampson, Kirton, Lincs.

WILLS

MR. ALBERT MARSHALL, 63 Lowlands Road, Eastcote, Middlesex, for many years manager in Bombay for Burroughs Wellcome & Co. (The Wellcome Foundation, Ltd.), left £883, with net personalty £750.

MR. HENRY SANGER, 39 Hill Street, London, W.1, formerly a director of Sangers, Ltd., Bristol and Newcastle-on-Tyne, left £138,862, with net personalty £137,695.

MRS. ALICE EVELINE MASSEY, 75 Warwick Road, Banbury, Oxon, wife of John Rowland Massey, M.P.S., a director and general manager of Thomas Pettifer & Co., Ltd., manufacturing chemists, Eydon, Rugby, left £129.

MR. WALTER FREDERICK WHARMBY, M.P.S., 14 Watson Avenue, Mansfield, Notts, and Ruswarp Old Hall, Yorks, former head of J. J. Wharmby & Sons, manufacturing chemists, left £11,660, with net personalty £5,998.

TOPICAL REFLECTIONS

Destiny of "Back-room Boys"

Your criticism of a "Manchester Guardian" pronouncement on the relation between pure and applied science as now practised (p. 305) is justified. Whereas the "M.G." fears that "too many young scientists, possibly other Rutherfords among them, might be drawn away by a mistaken sense of social duty from that pure research that was their true vocation," you point out that the Government sponsorship of technological colleges has been widely welcomed as a promotion of higher status for scientists in industry. The truth is, I think, that there will always be ample scope for both kinds of research. We can hardly imagine a time when scientists will have discovered the last secrets of nature and their practical applications. Whether an ambitious graduate in science chooses a career of pure research or decides to apply his knowledge to industrial problems is largely a matter of temperament, of hearing a call to the one kind of vocation or the other. At one end of the spectrum of scientific output we have the higher mathematics ("and may they never be of any use to anyone," the legendary toast ran); at the other end a tangible result in the form of some new machinery or process. So we need not be in a hurry to decide off-hand that we must have an immediate increase of the one type of worker rather than the other. The appointments boards of the universities are, I suppose, the only sources of trustworthy "follow-up" statistics of recent graduates in science. And the backing that a university education can give may be summed up in such words as "culture" and "humanities."

Training for Supervision

The new scheme of training for supervisory work such as that undertaken by foremen (p. 306) is worth examining. Even without the statement that a similar scheme has been "successfully operated in America," experienced readers of your comment would have made this inference from internal evidence. The analysis of the qualities required and the brief period of training regarded as sufficient are typically American. The main difficulty that occurs to me is that of priming the selected candidates in the time allowed, a total of ten hours. Is this time adequate for mastering work demanding a somewhat complex combination of gifts? We will assume that the preliminary choice of men and women to be trained in this course had been wisely made; for if the human material is unsuitable, a veneer of what may be called foremanship will not go far. Even if the choice of *personnel* is the best that can be made, the teaching of the work —so far as it can be taught—will need remarkable concentration on the part of teachers and pupils alike. However, if the system produces the expected results, it will prove its soundness. It will be the old story of the pudding and the eating. Anglicising the American proposals, a normal evolutionary development, will no doubt bring greater results as time goes on. Not for the first time will an idea, brought in from abroad, have undergone characteristic modification to meet the special conditions encountered in these islands.

Two Strings to a Bow

A recent paragraph (p. 267) on eminent men who, as you put it, "were—or would be—chemists," might be illustrated at considerable length. Names readily come to mind, and no two cases, I believe, are exactly alike. Here I have only space for three of them. Joseph Priestley, of oxygen fame, was for the greater part of his career a minister of religion, and some of his tracts were best-sellers. His contemporary, Benjamin Franklin, was trained as a printer, and in 1730 became the sole owner of a printing business in Philadelphia. His interest in science increased till, in 1748, he took his foreman into partnership for the sake of obtaining leisure to experiment. During the next six years he carried out the investigations in science, and especially in electricity, that made him famous. Eventually he devoted himself to public affairs in his own country and, as an ambassador, in Europe; but his scientific period is ranked in the Dictionary of American Biography as the happiest of his career. A distinguished compatriot of Franklin's, James McNeill Whistler, was conversant with chemistry to the extent of studying it for the purpose of an army examination at West Point, U.S.A. Unhappily—though happily for art—he told his examiner that silicon was a gas, and was rejected with the dry remark, "That will do, Mr. Whistler." Years after, the famous artist made the characteristic comment: "Had silicon been a gas, I would have been a major general." This has something of the flavour of another famous remark, "There, but for the grace of God, go I."

Xrayser

COMPANY NEWS

C. & G. Chemicals, Ltd. (P.C.).—Capital £100. To carry on the business of manufacturers of and dealers in chemicals, disinfectants, fertilisers, oils, soaps, etc. N. S. Campbell, 47 Grants Close, London, N.W.7 and S. Glicher, 26 Florence Street, London, N.W.4 directors. R.O.: 30 Hassop Road, London, N.W.2.

South Eastern Chemicals, Ltd (P.C.).—Capital £100. To carry on the business of manufacturers of and dealers in chemical, pharmaceutical and medicinal products, etc. E. H. Kerridge, 12 Ballingdon Street, Sudbury, Suffolk, signs as director. R.O.: 24-5, Main Street, Assington, Suffolk.

L.A.C. Manufacturing Co., Ltd. (P.C.).—Capital £1,000. To carry on the business of manufacturers of and dealers in chemicals, drugs, medicines, plasters, disinfectants, fertilisers, etc. Harry A. Cook and Mrs. Isabel Cook, 42 Gerard Road, Kenton, Middlesex, directors. R.O.: St. Bride's House, 11 Salisbury Square, London, E.C.4.

Mackenzie & Co. Chemists, Ltd. (P.C.).—Registered in Edinburgh. Capital £1,260. Objects: To carry on the business of retail chemists, druggists, etc. J. Melville Mackenzie, 174 Mayfield Road, Edinburgh, and John A. S. H. Groat, 1 House O'Hill Grove, Blackhall, Edinburgh, directors. R.O.: 45 Forrest Road, Edinburgh.

Asco (Chemists) Products, Ltd.—Registered in Edinburgh. Capital £1,000. To carry on the business of manufacturers of and wholesale and retail dealers in surgical plasters and dressings, chemicals, drugs, etc. Hyman Fell, Julius Samuels and Betty Fell, 60 Albert Avenue, Glasgow, S.2, directors. R.O.: 1297 Gallowgate, Glasgow, E.1.

Vapour Fumigants, Ltd. (P.C.).—Capital £100. To carry on business of manufacturers, importers and exporters of and dealers in fumigants, vapours, chemicals, fungicides and disinfectants, etc. Edward D. S. N. Sparkes and Alec G. Sparkes, both of "Timbers," Sea Lane, Rustington, Sussex, directors. R.O.: "Timbers," Sea Lane, Rusington, Sussex.

Associated Cork Co., Ltd. (P.C.).—Capital £3,000. To acquire the business of a cork merchant now carried on by Emiliano Tato, at 133-5, High Street, Stratford, London, E.15 as "E. Tato." Emiliano Tato and Antoinette N. Tato, both of 105 Moring Road, Upper Tooting, London, S.W.17, directors. R.O.: 41-2 King William Street, London, E.C.4.

Far Eastern & Brazilian Products, Ltd. (P.C.).—Capital £100. To carry on the business of manufacturing, wholesale and retail chemists, etc. Harold H. McCarthy, 279a High Road, Willesden Green, London, N.W.10; James E. Hutchings, 76 Bury Street, Ruislip; and Mordecai Landy, 100 Great Portland Street, London, W.1, directors. R.O.: 18 Essex Street, London, W.C.2.

Snowden Kirk (Chemists), Ltd. (P.C.).—Capital £2,000. To acquire the business of a chemist and druggist as formerly carried on by Muriel M. Jones as "Snowden Kirk" at 6 Chrisp Street, Poplar, London, E.14. David Jones and Muriel M. Jones, 110 St. Leonard's Road, Poplar, E.14; and Horace Moore, 145 Balgores Lane, Gidea Park, Essex, directors. R.O.: 78 Dean Street, London, W.1.

Charles B. Wood, Ltd. (P.C.).—Capital £100. To carry on the business of manufacturers of and dealers in (for export and import) pharmaceutical and general chemists' sundries, dealers in toilet requisites, etc. Charles B. Wood and Blanche E. Wood, both of "The Haven," 244 Gillott Road, Edgbaston, Birmingham, directors. R.O.: Parade Buildings, Long Lane, Blackheath, nr. Birmingham.

Associated Bottle Co., Ltd. (P.C.).—Capital £200. To purchase, repair, clean and renovate and render available for re-use all forms of bottles, jars and containers; to manufacture and deal in all forms of chemical and other compositions and substances, etc. First directors are to be appointed. Solicitors: Kenneth Brown Baker Baker, Essex House, Essex Street, London, W.C.2.

Vitalizations (Brewing), Ltd (P.C.).—Capital £2,200. To exploit inventions for the vitalization of liquid suspensions by the absorption of electronic energy or creation or strengthening of ionic energy, etc. J. P. King, Tahoma Lodge, Lubbock Road, Chislehurst; J. R. Chambers, 12a Cottesmore Court, London, W.8; and B. F. Reilly, 13 Leinster Square, London, W.2, directors. R.O.: 63 Coleman Street, London, E.C.3.

London Oil Refining Co., Ltd. (P.C.).—Capital £50,000. To acquire the business of an oil refiner and blender carried on by Frank Andrew, at Manchester, London

and elsewhere, as the "London Oil Refining Co." Henrietta Andrew; Ian C. Andrew and Frank A. Andrew, all of The Nook, Park Road, Cheadle Hulme, Ches, directors. R.O.: Lorco Works, Croft Street, Clayton, Manchester.

W. N. Barkwill (Plastics), Ltd. (P.C.).—Capital £1,000. Moulders in plastic materials, manufacturers of and dealers in chemical and other preparations, etc. William N. Barkwill, Risebridge, London Road, Bolney, Sussex and Rachel Miller (British, formerly Polish), 613 Endsleigh Road, Upper Woburn Place, W.C.2, directors. R.O.: 115A Chancery Lane, London, W.C.2.

Evans Medicinal Products (Bury), Ltd. (P.C.).—Capital £1,000. To carry on the business of manufacturers of and dealers in medicated and other confectionery, chocolates and sweets, medicines, chemicals, etc. Frank Hibbert, 83 Hilton Lane, Prestwich; Granville M. Evans, 33 Bury New Road, Prestwich; George S. Clegg, 29 The Drive, Seedley, Bury; and James Nuttall, 857 Walmersley Road, Bury, directors. R.O.: Chapel Street, Bury.

The Association of Manufacturing Chemists, Ltd.—Mr. G. A. K. Dalrymple, director of Ayrton Saunders & Co., Ltd., Liverpool, has accepted a seat on the Board of Directors in place of the late Mr. W. R. Jamieson, formerly managing director of Ayrton Saunders & Co., Ltd.

Veno Drug Co., Ltd.—Interim dividend is announced of 75 per cent., less tax, on the deferred shares.

Vitamins, Ltd.—At the annual meeting held in London recently, Mr. H. C. H. Graves, in his speech to the shareholders, said: The dividend of threepence per share represented 2½ per cent. to shareholders, who put up 10s. per share in 1929, although British company law and practice made them describe it as 25 per cent. because the shares were nominal 1s. shares.

EXPORT LICENSING CHANGES

The Export of Goods (Control) (No. 3) Order, 1946, made by the Board of Trade, which comes into operation on September 16, 1946, makes certain changes in the form of additions, modifications and cancellations in the licensing control of exports. It should be noted that the export of perfumery and toilet preparations is to be limited to specified classes of goods.

The additions to the schedule of goods of interest to the drug trade requiring export licences are:—

Group 3.—Preparations, products and substances (whether or not exported as substitutes for soap) in respect of which there are in force licences granted by or on behalf of the Minister of Food under the Soap Substitutes (Labelling and Prices) Order, 1943. Products of the sulphation (sulphonation) of aliphatic alcohols and aliphatic hydrocarbons, salts of such products, and mixtures (other than medicinal preparations) containing any of the foregoing. Soapless shampoos.

Group 6 (1).—Ores and concentrates of thorium and uranium.

Group 8.—Polymers of vinyl chloride, co-polymers made mainly from vinyl or polyvinyl chloride, and compositions consisting mainly of any of these materials, in the form of rough sheet, strip, powder, granules or chips.

Group 13.—Aqueous emulsion of asphalt, bitumen and pitch (other than coal tar pitch) whether natural or not. Cadmium compounds, cadmium mass and cadmium lithopone.

The principal removals and modifications are:—

Group 8.—Under the heading relating to manufactures wholly or mainly of balata, gutta-percha, rubber latex, rubber and synthetic rubber, the item "Sheeting of a thickness not less than ⅛ of an inch and not more than ⅜ of an inch" has been removed from export licensing control.

Group 13.—The note at the head of Group 13 that simple or compound radicals not qualified by the recognised prefixes such as ortho, meta, para, alpha, beta, mono, bi, di, tri, iso, include all forms which would be covered by the introduction of such qualifications to the radical, has been deleted.

Second Schedule.—The heading in the schedule under which perfumery and toilet preparations, whether medicated or not (but not including soaps) may be exported without export licence has been limited to the following toilet preparations:—Brilliantines, hair oils, hair creams, hair tonics and setting lotions. Cosmetics. Dentifrices and denture cleaning preparations. Dusting powders. Face powders. Perfumery. Skin creams, skin foods and skin lotions. Soapless shaving creams.

TRADE NOTES

Five-day Week.—Thompson & Capper Wholesale, Ltd., manufacturing and wholesale chemists, Speke Hall Road, Liverpool, 19, have adopted a five-day working week at their works.

Chemists' Sundries Catalogue. — An abridged illustrated catalogue of chemists' sundries and laboratory ware has been issued by S. Haydock & Co., Townhail Street, Belfast.

Price Alteration.—Attention is drawn on another page of this issue to a number of additions and alterations, effective from September 1, to the price list of Roche Products, Ltd., Welwyn Garden City, Herts.

Change of Size.—The British Drug Houses, Ltd., Graham Street, London, N.1, state that the 2-lb. jars of Radio-malt are temporarily out of stock, but that, since September 9, 4-lb. jars have been available.

Tablets for Asthma.—The International Laboratories, Ltd., 1-3 Smedley Street, London, S.W.8, point out that Do-Do asthma tablets, the formula for which is given in the company's announcement, are on the C.F. and P.A.T.A. lists.

Christmas Items.—Loveluck, Edwards & Co., 432 Garratt Lane, London, S.W.18, offer bath salt coffret boxes, essences, dyes, bottles and similar items suitable for chemists' Christmas trade. An illustrated price list is available.

Acridines.—Inquiries referring to acriflavine, acriflavine neutral, proflavine, together with the monohydrochloride and neutral sulphate of proflavine, are invited by the wholesale and export department of Boots Pure Drug Co., Ltd., Nottingham.

Anti-mouse Preparation. — Chemical Colloids Corporation, Ltd., 120 Victoria Street, London, S.W.1, have introduced Git as a preparation for banishing mice. Git is stated to be harmless to human beings and pets. Trade terms were given in a recent announcement.

Now Obtainable in Quantity.—John Knox, Cannon Street, Hanley, Stoke-on-Trent, and 36 Dean Street, Birmingham, 5, announce that supplies are now available in quantity of Dr. Knox's antiseptic smelling salts. Terms are given in an announcement in this issue.

Supply Position Improving.—Gillette Industries, Ltd., Great West Road, Brentford, Middlesex, announce that the supply position of Gillette razors and blades is improving, and they suggest that chemists who make a window display of these items will be amply repaid.

Chemists Thanked. — Wigglesworth, Ltd., Westhoughton, Bolton, Lancs, take space in this issue to express their gratitude to chemists who have supported them during the difficult war period and for many letters expressing continued satisfaction at the company's service.

Creosote Linctus.—In the series of counter lines offered by Duncan, Flockhart & Co., Edinburgh, one item is Creodyne (Duncan) which is described as a "seasonable linctus with a wide reputation." The formula includes lacto-creosote, codeine and aconite in a pleasantly flavoured glycerin base.

Seamless Teats and Valves.—The Reliance Rubber Co., Ltd., Lots Road, Chelsea, London, S.W.10, emphasise that there has been no deterioration in the quality standards of their Lullaby moulded, heat-cured teats and valves, which are described as "the original seamless" and can be sterilised continually without deterioration.

Ladder Preventive.—Hose Guard is the title of an anti-ladder preparation for hosiery obtainable from Sale, Tilney & Co., Ltd., 3 Lloyds Avenue, London, E.C.3. The makers state that Hose Guard is a chemical solution specially made for the purpose, and is not a nail varnish; it is supplied in small bottles suitable for carrying in the wearer's handbag.

Again Available. — Sandoz Products, Ltd., 134 Wigmore Street, London, W.1, announce that Calcibronat (calcium bromo-lactobionate) in ampoules of 5 and 10 c.c. is again available through the wholesale distributors, Brooks & Warburton, Ltd., 232 Vauxhall Bridge Road, London, S.W.1. Technical inquiries should be addressed to the manufacturers.

Booklets for Medical Men.—Ward, Blenkinsop & Co., Ltd., Brooklands, Halewood, Liverpool have prepared a number of booklets dealing with a range of products issued by the company and now regularly used in clinical practice. Supplies of the booklets will be forwarded to any chemist on request; copies of the company's latest price list are also available on application by retailers.

Wholesalers Have Stocks.—The D.D.D. Co., Ltd., 3 Fleet Lane, London, E.C.4, state that adequate supplies of D.D.D. balm are available from the usual trade wholesalers. The preparation is claimed to be soothing and healing to babies' skins, without causing sting or burn; it is being widely advertised in the national and provincial Press and in women's journals.

A Widely Advertised Product.—Dae Health Laboratories, Ltd., Maidstone House, 26 Berners Street, London, W.1, state that every month a total of 60,800,000 advertisements for Valderma antiseptic balm appear in the national and provincial newspapers and magazines. With every order for the large size of this preparation, attractive show material is available from the makers.

Accurately Calibrated Glassware.—The operation of calibrating Pyrex brand laboratory glassware by a system which is described as "simple but effective," was illustrated in an announcement recently by James A. Jobling & Co., Ltd., Wear Glass Works, Sunderland, who point out that Pyrex graduated glassware is supplied only through recognised laboratory furnishers. Illustrated catalogues are available to chemists on request.

Penicillin Injections.—Chemists in the areas of Guildford, Dorking, Farnham and Haslemere in Surrey, and Horsham in Sussex, are informed that Mr. Dan Clare, M.P.S., High Street, Cranleigh, Surrey (Telephone: Cranleigh 207) now holds a licence under the Therapeutic Substances Act to prepare injection solutions of penicillin; he is prepared to supply local pharmacists by motor delivery within a radius of twenty miles.

More Frequent Calls.—Optrex, Ltd., Perivale, Middlesex, announce that the company's representatives, reinforced by a number of men who have returned from the Forces, will in future be calling more frequently on chemists than has been possible in recent years. Another outcome of the improving conditions of trade is that a prescription scheme introduced by the company early in the war to ensure that, so far as possible, Optrex products would always be available to the most urgent cases, has been withdrawn. A new item shortly to be issued is Optrex eye compresses, full particulars of which may be obtained from the representative when he calls.

***d*-Tubocurarine Chloride.**—This muscle relaxant with important applications in anæsthesia is prepared in this country by Borroughs Wellcome & Co. (The Wellcome Foundation, Ltd.), 183-93 Euston Road, London, N.W.1, and is available as Tubarine brand injection of *d*-tubocurarine chloride in boxes of six and twenty-five ampoules and rubber-capped bottles of 50 mgm. in 5 c.c. The preparation is issued with a warning against its use except by experienced anæsthetists familiar with its administration. A leaflet in which the clinical pharmacology, administration and clinical applications of the drug are discussed is available from the manufacturers, and the Editor takes the opportunity of acknowledging the company's ready co-operation in preparing material for the article "Arrow Poison to Anæsthesia" which appeared in THE CHEMIST AND DRUGGIST, September 7, pp. 308-310.

"Complete" Antiseptic.—Because it is non-selective in its action against disease-causing germs, and because healing of wounds is not impeded by the strongest concentration necessary to ensure antisepsis, Streph, a preparation introduced recently by Jeyes' Laboratories, Ltd., London, E.13, is claimed by the makers to be the "complete" antiseptic. Its germicidal properties are maintained in the presence of blood and pus, it is non-toxic, odourless and powerfully deodorant, clear in solution. The product is available in cartoned bottles as illustrated.

Proprietary Articles Trade Association

Additions to Protected List.—*Calmic, Ltd.*, Crasules (ten capsules), 72s. doz., tax 12s. doz., inclusive retail price 9s. 6d.

Alterations.—*Hirst, Brooke & Hirst, Ltd.*, White Bear brand cod-liver oil and cod-liver oil emulsion, 8-oz., 2s., 16s. 9d. doz.; 20-oz., 4s. 6d., 37s. 9d. doz. (exempt from tax). New prices in force to retailers September 1, and to public October 1.

Parke, Davis & Co., Cascara sagrada extract tablets, gr. 2 (S.C.T. 261), 25's, 6s. doz., tax 1s. doz., i.r.p. 10d.; 100's, 15s. 6d. doz., tax 2s. 7d. doz., i.r.p. 2s. 2½d.

Westminster Laboratories, Ltd., Bonomint. Owing to increases in cost of material, etc., the number of tablets in the 1s. 3d. size has been reduced from eighteen to sixteen. Prices remain the same. No alteration will be made in the 6d. size., which contains six tablets.

MEASUREMENT OF ENVIRONMENTAL WARMTH

PROLONGED exposure to very high temperatures, especially when performing physical work, may lead to heat stroke, heat collapse, or heat cramp; and even at temperatures well below those at which such acute troubles may arise there is a substantial loss of working efficiency, the capacity for manual work is impaired, and there is a disinclination to do work of any sort, mental or physical. It may be that in the ordinary conditions in which the chemical industry is carried on the problem never becomes acute, but it is probably true that too little work has been done on the subject. A 40-page booklet issued recently by H.M. Stationery Office under the title "Environmental Warmth and its Measurement" is described as a book of reference prepared for the Royal Naval Personnel Research Committee of the Medical Research Council. The conditions dealt with are those on naval ships, but some of the inferences are of general application.

Energy and Body Heat

The vital processes of the animal body are accompanied by considerable energy changes, all the energy being derived ultimately from the oxidation of foodstuffs. Energy not expended in mechanical work is liberated as heat. This heat serves to maintain the body temperature in cool surroundings, and even when the body is completely at rest, and in warm surroundings, heat production does not fall below a definite minimum value—the basal metabolism. When physical work is performed the heat production rises considerably. The gross mechanical efficiency achieved varies with the type of work, and is for many tasks of the order of 20 per cent., the remaining 80 per cent. of the expended energy appearing as heat. A man seated at rest produces heat at the rate of about 400 British Thermal Units (B.Th.U.) per hour, but when walking at four miles an hour his heat production is about 1,400 B.Th.U. per hour. Thus, in a cold environment one can keep warm by taking exercise, while at high temperatures muscular work increases the risk of unpleasant symptoms. One of the physiological requirements for health is the maintenance of a practically constant body temperature. In man the average mouth temperature is about 98.4°F., and the temperature of the deep tissues is about 99°F. In health these temperatures vary but slightly. The body temperature is controlled by physiological mechanisms which regulate the rate of heat-loss from the body surface. It is through the operation of these mechanisms that the temperature of the body remains nearly constant even though the warmth of the environment varies over a considerable range, and over long periods measurements of heat-production and heat-loss correspond very closely. But in very hot environments the body may not be able to get rid of heat as fast as it produces it; then the body temperature will rise, and if the exposure is prolonged, serious results may ensue.

Heat Interchanges

When a freely exposed object is at a temperature above that of its environment it loses heat (i) by radiation to surfaces which surround it; (ii) by convection to the surrounding air; and, if its surface is wet, (iii) by the evaporation of water from its surface. Various paints ranging from black to white were found indistinguishable as to heat radiation at temperatures up to 212°F.; aluminium and other metallic paints have an emissivity only about one-half that of a black surface. The low emissivity of a burnished metal surface is dependent on the surface being clean. A very thin film of non-metallic material—e.g., transparent varnish, or grease, raises the emissivity of the surface almost to that of a black body.

Environmental factors which affect the rate of body heat-loss are temperature, humidity and rate of movement of air, and radiation from the surroundings. If the thermal environment is to be completely specified, the four individual thermal factors (temperature, humidity and rate of movement of the air, and radiation from the surroundings) must all be taken into account. Instrumental measurements of each must be made. Cabinets of instruments for making the measurements in H.M. ships are now issued. The contents of the fitted cabinet (Mark II) include:—One whirling hygrometer; two kata thermometers, silvered (130°-125°F.); one kata thermometer, silvered (150°-145°F.); one black globe, for globe thermometer; three thermometers for use with black globe; four surface contact thermometers; one radiation shield; one stop-watch; one vacuum flask; three duralumin tubes; two clips; one polishing cloth for kata thermometers; one bottle distilled water. The duralumin tubes are intended to be screwed together and fixed to the screwed base on the lid of

the cabinet, thus providing a stand from which the instruments can be suspended by clips which are also included in the kit.

In comparing one thermal environment with another, it is clearly necessary to have some scale of warmth by means of which the summated effects of the separate environmental factors can be expressed in terms of a single index. For example, in two compartments the air temperature may be the same, but the humidity, air velocity and radiation intensity may differ to such an extent that the overall degree of warmth, as it affects the human body, is quite different in the two compartments, despite the identical air temperatures. An index which is used throughout the U.S.A., and which, with one limitation, gives a good measure of the warmth of the environment, is "effective temperature." Effective temperature takes into account the temperature, humidity, and rate of movement of the air. It is referred to the standard conditions of still and saturated air, so that the effective temperature of an environment indicates the temperature of still air, saturated with water vapour, in which an equivalent sensation of warmth was experienced by the subjects in a series of tests.

"Equivalent" Temperature

Although effective temperature was founded on the basis of warmth sensations, research has shown that bodily reactions are closely associated with it, at any rate until the warmth of the environment approaches the endurable limit. Recently there have been indications that in extremely hot conditions, e.g., at effective temperatures above 90° F., effective temperature makes too much allowance for dry-bulb temperature, and that at such levels of warmth bodily reactions are more closely related to wet-bulb temperature than to effective temperature. However, prolonged research will be necessary to check this, and to revise the effective temperature scales if such revision is found necessary; meanwhile, for most practical purposes, effective temperature remains a reliable index of warmth. In Great Britain, a scale of warmth known as "equivalent temperature" is used by heating and ventilating engineers. It takes into account radiation, air temperature, and air movement; but it makes no allowance for atmospheric humidity, and, therefore, is not suitable for use when the air temperature is much higher than 70° F. The limitation of effective temperature is that it was not devised to make allowance for radiant heat. An approximate correction can be made by utilising the reading of the globe thermometer instead of the air temperature in calculating the effective temperature. The figure so obtained is described as the "corrected effective temperature." If "excessive corrected effective temperatures" are found, all possible steps should be taken to reduce them; and the detailed information concerning the individual thermal factors, which is yielded by the instruments, will indicate in what direction the remedy should be sought. The maximum temperature which can be borne without the development of unpleasant symptoms is very largely governed by the wet-bulb temperature. Air movement is also of importance, since evaporation takes place more rapidly in a wind than in calm air.

Heat and Industrial Output

Although acute troubles such as heat-stroke, heat-collapse, and heat-cramps are likely to occur only at really high temperatures, more moderate, but still high, temperatures exert their effects on the capacity for doing work. Evidence of these effects has been gained partly in the laboratory, and partly by observations in industry. Men working in the laboratory on weight-lifting experiments, who were paid a bonus on the amount of work done, performed 15 per cent. less work at a temperature of 75° F. than they did at 68° F. Other laboratory experiments demonstrated the loss of manual dexterity at low temperatures. The subjects were engaged in assembling the links of a bicycle chain. When the room temperature was reduced from 62° F. to about 50° F., they took 12 per cent. longer time to perform a standard task. Observations made on miners working at the coal-face in Great Britain showed that men working in seams where the effective temperature was 81° F. had a working efficiency 41 per cent. less than that of men working at an effective temperature of 66° F. In the glass-bottle industry, investigations have shown that output is greater in the winter months, when the factories are cool, than in summer, when they become hot. Besides affecting working capacity and causing discomfort, excessively warm or cold environments have their effects on the risk of accidents. During the war of 1914-18, at a big munition factory the average temperature and the number of cuts and other minor accidents during each work spell were recorded. From the data obtained, it was concluded that accidents were least frequent between 65° F. and 69° F.

WAR-TIME HEALTH

In an introduction to his report "On the State of the Public Health During the Six Years of War," recently published, Sir Wilson Jameson (Chief Medical Officer of Health) describes as "miraculous" the present state of public health. Vital statistics were "phenomenally good" during the war, the birthrate commencing to rise in 1941, and reaching 17.7 in 1944, the highest since 1926. The effective reproduction rate came within 1 per cent. of a full replacement standard, though it has fallen since.

Low Child Mortality

The low mortality of children from disease was outstanding, and despite 7,000 children's lives lost from enemy action, and an increase in accidental deaths due to war-time causes, the average death rates for the years 1940-44 were below those for any year prior to 1939; moreover, new records were established in 1942 and 1943. Rates of stillborn and maternal mortality declined during the war, and infant mortality rates were reduced considerably in Liverpool, Nottingham, Greater London and other large towns. Deaths from certain diseases, such as cancer, leukæmia, coronary and arterial diseases, increased during the war, but for cancer (apart from that of the lung) the increase was no greater than that expected from the rising population at the most susceptible ages.

Absence of Serious Epidemics

The only serious epidemic was one of cerebro-spinal fever, but statistics suggested that some 15,000 lives had been saved by the use of new methods of treatment. Infective jaundice also increased. In six winters, three of which were severe, there were two short epidemics of influenza. Credit is given to all concerned in the maintenance of water supplies and sewerage disposal for the absence of water-borne diseases during periods of bombing, when the risks were increased.

Diphtheria Immunisation

Following the start of the Ministry of Health's diphtheria immunisation campaign the numbers of cases and of deaths due to diphtheria declined each year, and by 1944 diphtheria deaths were reduced to less than one-third of the pre-war average. Nevertheless more children were killed by this, a preventable disease, than by enemy bombs. Effort is still needed, the report stresses, to raise the proportion of immunised children to at least 75 per cent. especially in the pre-school groups.

Of diseases which may be imported only a few cases of typhus had been reported, and cases of imported malaria were rare, but there was a danger of introducing rabies through the smuggling of dogs by returning Service-men from the various depôt areas overseas.

Fight Against Tuberculosis

After a temporary increase in deaths from tuberculosis during the period 1939-41, figures for these deaths had resumed their pre-war trend. Since the commencement of mass radiography and other measures the prospect in the field of tuberculosis was encouraging.

The report mentions as "an event of great importance" the discovery by Professor Dodds of the beneficial effect of stilbœstrol on cancer of the prostate.

There is still an undue amount of preventable anæmia among infants and young children, expectant mothers and other groups of the population.

Venereal Diseases

Incidence of early syphilis increased by about 140 per cent. over the 1939 figure, but in 1944 there was a slight decline. The incidence of gonorrhœa probably reached a peak in 1942, when it was about 86 per cent. higher than in 1939. The availability of the sulphonamides and later of penicillin enabled the infectivity of these diseases to be checked quickly.

The Emergency Public Health Laboratory Service, described as "an integral part of the public health service of the country," affords a good illustration, the report continues, "of what can be accomplished only by organising on a national scale."

It is intended that the blood-transfusion service, "one of the . . . best organised of all war-time services" shall be continued as a function of the Ministry of Health. Blood-transfusion is in urgent need of further research.

Under the heading of maternity and child welfare, inquiry is called for into the types, efficacy, and safety of analgesics available for administration by midwives.

The advantages of the co-ordination of hospital provisions such as existed in the Emergency Hospital Scheme are quoted as indicating that a pooling of hospital resources should be continued in some form in the post-war years.

Advances in Therapeutics

Important advances in therapeutics mentioned in the report include the use of the sulphonamides, penicillin and the insecticides D.D.T. and Gammexane. Of these insecticides it is reported that their discovery "may well have greater and more lasting effects on the health of the human race than any other in the last six years."

The value of a monthly survey of sickness conducted by the war-time social survey is reviewed, the survey being designed to give monthly and quarterly indices of the amount of new illness arising in the civil population, and to discover to what extent such illness varies according to sex, age group, family size and factors affecting living conditions.

The report closes on the note that more health education is required, and that war-time experience in this sphere (e.g., poster-displays, broadcasts, etc.) justifies considerable extension of the service. Copies of the report may be obtained from H.M. Stationery Office, Kingsway, London, W.C.2, price five shillings.

RUTIN AND CAPILLARY FRAGILITY

RUTIN, a flavonol glycoside recently found to be effective in the treatment of increased capillary fragility is described in the "American Journal of Pharmacy", May 1946, pp. 164-75. Work from 1936 onwards on compounds possessing vitamin P activity indicated that the active factor (an impurity in compounds examined) was probably of a flavonol structure. Rutin, a flavonol with the sugar part of the molecule consisting of glucose and rhamnose, was shown by trial to be active, and clinical testing over a period of three years by many physicians confirmed the value of this compound in the treatment of certain cases of increased capillary fragility. Pure rutin ($C_{27}H_{30}O_{16}\ 3H_2O$) is a yellow, tasteless, non-toxic powder consisting of masses of microscopic acicular crystals, which become plastic at 182-92°C. and decompose sharply at 214-15°C. It is soluble only 0.13 gm. per litre in cold water, but is much more soluble in boiling water, and is soluble in methanol, ethanol, acetone, and ethyl acetate, and is very soluble in pyridine and alkaline solutions. It is insoluble in chloroform, ether, benzene, and in petroleum solvents. It decomposes on exposure to light, and on acid hydrolysis yields quercitrin, glucose, and rhamnose.

Sources of Rutin

Buckwheat (*Fagopyrum esculentum*) is the most promising natural source of rutin, but other plant sources include tobacco, forsythia, hydrangea, and pansies. The rutin content of buckwheat is highest at the "3-5 blossom stage." Rapid drying is necessary to prevent loss of rutin, but freshly harvested buckwheat may be used if it can be processed immediately. A content of 3 to 5 per cent. rutin has been obtained.

Preparation of Rutin

Fresh buckwheat is extracted by a double maceration with alcohol, and the alcoholic solution is concentrated and cooled. Crude crystalline rutin is filtered off, dried, extracted with benzene to remove the fats, and recrystallised twice from water.

The dried leaf-meal may be extracted by two methods. In the first method hot water is used as the solvent and 97 per cent. of the rutin is extracted in three thirty-minute extractions. The extract is filtered, concentrated *in vacuo*, protein is precipitated with 95 per cent. alcohol, and filtered off. Crude rutin is crystallised by concentration, and is purified by recrystallisation. In the second process, which uses 70 per cent. alcohol as solvent, leaf meal is macerated three times with the solvent for twelve hours. The extracts are concentrated *in vacuo*, fats and other impurities being removed by hot filtration and benzene extraction. The filtrates are then purified by methods similar to those in the hot water extraction process.

Action and Uses

Rutin is of value in conditions in which hæmorrhage or weakened capillaries occur. No toxic effects have been observed and the drug is devoid of cumulative action. Of 225 patients treated for increased capillary fragility only a small number required more than 60 mgm. per day.

Other conditions in which rutin has proved of value are retinal hæmorrhage (which causes partial or complete blindness), diabetic retinitis, non-tuberculous pulmonary hæmorrhage. The drug has also shown a lowering of blood pressure in hypertension. Rutin is less effective in cases of a simultaneous vitamin C deficiency.

It has been estimated that approximately 1,300,000 lb. of rutin will be required annually for medicinal and possibly nutritional requirements of the United States.

C. & D. DISPENSING PRICE LIST

The following price changes should be noted for August:—

Cost		*Due allowance has been made for purchase tax in both cost and dispensing prices*	Dispensing price		
d.	*per*		4 oz.	1 oz.	1 dr.
			s. d.	s. d.	s. d.
57	oz.	Argenti nitras ..	—	8 4	1 4
91	oz.	Argenti proteinas mite	—	—	2 2
52	lb.	Confectio sulphuris ..	1 11	0 7	0 1
168	lb.	Dec. senegæ conc.	6 0	1 9	0 3
56	lb.	Emulsio benzyl. benzoat. ..	2 0	0 7	0 1
59	lb.	Ext. glycyrrhizæ liquidum ..	2 5	0 8	0 1
35	oz.	Ext. hamamelidis	—	5 2	0 9
11	oz.	Ext. hamamelidis liquidum ..	—	1 9	0 3
20	oz.	Ext. lobeliæ liquidum ..	—	2 11	0 6
30	oz.	Ext. senegæ liquidum ..	—	4 4	0 8
26	oz.	Ext. taraxaci pulvis	—	3 9	0 7
46	lb.	Gelat. zinci et ichtham., B.P.C.	1 8	0 6	—
38	lb.	Glyc. plumbi subacet. P.I.(9)	2 1	0 7	0 1
147	lb.	Inf. senegæ conc.	5 4	1 6	0 3
70	lb.	Linctus camph. co., B.P.C. P.I.(13)..	2 11	0 9	0 2
122	lb.	Lin. methyl. salicylatis co. (34) P.I. (12)	5 0	1 4	0 2
28	lb.	Lin. saponis meth.	1 1	0 4	—
156	lb.	Ol. amygdalæ ..	5 7	1 8	0 3
60	oz.	Papainum.. ..	—	8 9	1 5
10	oz.	Phenolphthaleinum	—	1 5	0 3
126	lb.	Pulv. catechu co. ..	5 3	1 5	0 3
46	lb.	Pulv. cretæ aromaticus ..	1 8	0 6	0 1
84	lb.	Pulv. cret. arom. c. opio S.I.(5) ..	3 0	0 10	0 2
22	oz.	Pulv. ipecac. et opii S.I.(5)	—	3 9	0 7
59	lb.	Pulv. pro mist. cretæ	2 3	0 8	0 2
126	oz.	Quinina	gr. x	0 6	—
126	lb.	Sennæ fruct. Alex. No. 1	4 6	1 3	—
30	lb.	Syr. triplex, B.P.C. P.I.(9 & 13) ..	1 5	0 5	0 1
136	lb.	Tr. benzoini comp.	4 10	1 4	0 2
129	lb.	Tr. senegæ ..	4 8	1 3	0 2
91	lb.	Tr. valerian. ammon... ..	3 4	0 11	0 2

BUSINESS CHANGES

The Fine Chemical Export Group has removed to c/o Mr. H. Barningham, Monsanto Chemicals, Ltd., Victoria Station House, London, S.W.1.

Mr. B. L. Casley, M.P.S., has been appointed representative in the West of England and South Wales for C. R. Harker, Stagg & Morgan, Ltd., Emmott Street, Mile End, London, E.1.

Watford Co-operative Society, Ltd., have been granted a licence for converting the shop and storeroom at 154 St. Albans Road, Watford, into a pharmacy.

St. Helens Industrial Co-operative Society, Ltd., are opening a pharmacy department at Peckershill Road, Sutton, on September 23, 1946. A pharmacy department will be opened at the Society's central premises at a later date.

Messrs. F. T. Taylor, M.P.S., F.S.M.C., and E. Cotterill, M.P.S., F.S.M.C., have acquired the business of Mr. I. Hodkinson, M.P.S., 101 Mill Street, Huddersfield. They will carry on the business in partnership, but under the present title.

Mr. Thomas P. Brodie, M.P.S., accompanied by Mrs. Brodie, sailed recently for India to take up an appointment with May & Baker (India), Ltd. Mr. Brodie joined Pharmaceutical Specialities (May & Baker), Ltd., in 1941 as a medical representative.

COMING EVENTS

Wednesday, September 18

Wigan Branch, Pharmaceutical Society, Mayoral Chambers, King Street, Wigan, at 7.30 p.m. Dinner. Mr. H. N. Linstead, M.P., Ph.C. (secretary of the Pharmaceutical Society), and Dr. R. Clitherow, M.P., M.P.S., on "The Proposed Craft Union for Pharmacists."

Thursday, September 19

Finchley Division, North London Pharmaceutical Association. Visit to factory of Ilford, Ltd., Cricklewood, London, N.W.10. Meet at "The Crown," Cricklewood, 2.30 p.m. 655 trolley bus from Barnet. Notify secretary.

Manchester Pharmaceutical Association and Branches of the Pharmaceutical Society and National Pharmaceutical Union, Midland Hotel, Manchester, at 7.45 p.m. Dr. R. Clitherow, M.P., M.P.S., on "Pharmacy and the N.H.S. and Current Pharmaceutical Topics."

South-west London Chemists' Association, Wellcome Research Institution, 183-93 Euston Road, London, N.W.1, at 8 p.m. Mr. S. Schofield (manager, photographic department, Burroughs Wellcome & Co.), on "Modern Aspects of Indoor Photography."

Sunday, September 22

Manchester Pharmaceutical Association. Ramble to Chelmorton and Monsal Dale. Meet at Central station 8.45 a.m. Book Buxton return.

CONTROL OF ANIMAL DISEASES

In a paper presented to the Farmers' Club in London recently, Mr. H. W. Steele-Bodger, M.R.C.V.S., said the interest of the State in diseases of animals traced back to 1865 when the stirring events of the outbreak of rinderpest or cattle plague, which caused losses of more than 10 per cent. of the cattle population, created a national policy of defence against imported diseases of livestock which is still in being. Starting as a "Cattle Plague Department," this State organisation had a chequered career, but, connected with Fisheries, it finally graduated as a Ministry in 1919, just before the formation of the Ministry of Health.

Local Veterinary Staffs

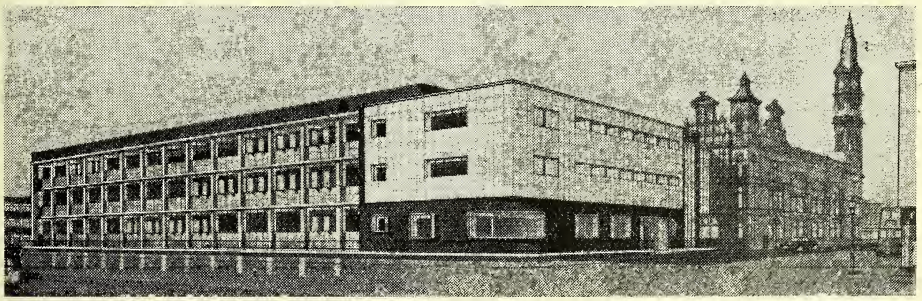
Early in the present century it had been established that tuberculosis of cattle was dangerous to human beings, and beginning with the north country and Scotland during the 1920's, more and more local authorities appointed veterinary staffs, and there gradually emerged a set of disconnected veterinary services whose *raison d'être* was not animal but human health.

In 1932 the Gowland Hopkins Committee was appointed "to consider what practical measures can be taken to secure a reduction of disease among milch cattle in this country . . ." The report of the committee, which aroused considerable interest at the time, showed that the loss of no less than 58.2 per cent. of dairy herds was on account of disease, and that the loss of many of the remainder was directly attributable to disease. Reproductive diseases accounted for nearly 27 per cent., udder diseases nearly 8 per cent., tuberculosis and Johne's disease nearly 10 per cent., reactors to the tuberculin test 3½ per cent., and other diseases 10 per cent of the total number of losses.

Recommendations

The Committee recommended possible lines of administrative development as follows: (1) Extension of routine veterinary inspections; (2) an active policy for the eradication of bovine tuberculosis; and (3) granting to large urban authorities the right to require pasteurisation of milk not produced from herds free from tuberculosis. Within four years, however, county veterinary departments were absorbed into a central authority, the Ministry of Agriculture, and an endeavour was made by the creation of a "veterinary service for the whole island [Britain] to combat the diseases of animals, and of poultry in all their manifestations," in the words of Mr. W. S. Morrison, then Minister for Agriculture. A State veterinary service was created under the title of the Animal Health Division of the Ministry of Agriculture, which was significant in its reference to animal health as opposed to animal disease.

The speaker stressed the need for adequate clean water supply. Contaminated drinking water, inadequate sewage facilities and inefficient drainage might cause the spread of mastitis, tuberculosis, contagious abortion, Johne's disease, fascioliasis (fluke), parasitic bronchitis, and parasitic gastro-enteritis (stomach worms).



ELEVATION OF A NEW FACTORY.—Work has started on a new £125,000 factory for the Beecham group of companies at St. Helens, Lancs, which is expected to be completed towards the end of 1947. The company hopes to employ an additional 400 hands to assist in the country's export drive. The existing premises, which, as will be seen, are to remain as part of the whole block, were erected in 1887.

A TABLE OF

	Introduced	Compound	Trade Name	Bacteria
Group 1 Readily absorbed from intestinal tract	1935	Sulphonamido-chrysoidin	Prontosil rubrum	
	1935	Sulphanilamide	various	βHæmolyt Meningo Gonococ Coliform
	1936	Benzyl sulphanilamide	Proseptasine	As for sulp
	1936	Bis-bisulphite compound of N_4 cinnamyl sulphanilamide	Soluseptasine	
		4-Sulphamido-7-acetylamino 1-oxynaphthaline-3-6-disulphonic acid	Prontosil album	
	1938	Sulphapyridine	M. & B. 693	Pneumoc Gonococ Meningo Hæmolyt Staphyloc
	1940	Sulphathiazole	Thiazamide Cibazol	Pneumoc Gonococ Staphyloc *Ps. pyocy*
	1945	Disodium cinnamylidene dibisulphite derivative of sulphathiazole	Soluthiazole	
	1940	Sulphadiazine		βHæmolyti Pneumoc Gonococ Meningoc Staphyloc *B. friedlä*
	1942	Variants of sulphadiazine:— Sulphadimethyl pyrimidine	Sulphamezathine	As for sulpha
		Sulphamonomethyl pyrimidine	Sulphamerazine	As for sulpha
		4-Aminomethyl benzenesulphonamide (homo-sulphanilamide)	Marfanil	
Group 2 Less readily absorbed	1940	Sulphaguanidine		*B. dysenteria* Sonne st
	1943	Succinyl sulphathiazole	various	*B. dysenter* Sonne, Shiga
	1943	Phthalyl sulphathiazole	various	

HONAMIDES

	Special Features or Uses	Disadvantages
cci	"Best routine drug" (Whitby) against coliform bacteria (no risk of crystal formation in urine)	Useless against staphylococci and types I and II pneumococcal infections
	Lower toxicity than sulphanilamide	Less effective than sulphanilamide
	Introduced to provide means of injecting a sulphonamide (sulphanilamide being insoluble)	
occi	Less toxic than sulphapyridine. Gives most rapid single-dose blood concentration	Relatively high toxicity. Liable to cause crystal formation in urine
	Soluble and therefore suitable for parenteral administration to initiate therapy, or where sulphathiazole causes vomiting	
occi	Considered to have greatest bacterial activity. Can be administered 6-hrly instead of 4-hrly. Drug of choice in infections due to *Klebsiella pneumoniæ*. Less toxic than either sulphapyridine or sulphathiazole	Liable to cause crystal formation in urine
	Does not lead to crystal formation. Readily absorbed and slowly excreted. In acid solutions more stable than sulphadiazine. No serious toxicity	
	Not inhibited in presence of pus (used by Germans during war in treatment of wounds, much as penicillin was used by British military medical authorities)	
and	Absorption from gastrointestinal tract is slight. Acts on intestinal flora effecting rapid reduction in intestinal count of coliform bacteria and destroying anærobic proteolytic bacteria	Less active than sulphathiazole } Unsuitable for general systemic treatment

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INFORMATION WANTED

Information with respect to suppliers of the following items would be appreciated :

Metaquin (not mepacrine), a preparation for use in the treatment of malaria.

Mulce, a preparation for use in the manufacture of hair creams, etc.

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VOL. CXLVI SEPTEMBER 14, 1946 NO. 3475

Outlook for the Sulphonamides

ALLIED experts investigating German industry after the war are understood to have found that in the field of the sulphonamides production was still centred upon the original azo compound. This must be matter for some surprise in Britain and America, for the discovery that the antibacterial action of the original compound, sulphonamido-chrysoidin, lay in the sulphonamide and not in the azo group is of hardly more recent date than the discovery itself. It was in 1935 that the dramatic finding of Domagk that the drug had a marked activity against streptococcal septicæmia in mice, and only a few months later—but also in 1935—that Trefouël and co-workers in France demonstrated that the chrysoidin part of the molecule was unnecessary. From Trefouël's contribution, and from a subsequent observation by Ewins, working at Dagenham, who found that substitution in the sulphonamide radical could result in compounds possessing greater activity, has derived the whole impressive development of sulphonamide chemotherapy that has taken place in Britain and America during the past decade.

However, the introduction to medicine of penicillin, which adds to its virtues as a bacteriostatic agent an apparently complete absence of toxicity, raises the question to what extent the sulphonamides have been or may be superseded. An apparent slackening in the pace of discovery in the sulphonamide field provides an additional reason for reviewing the situation. Quite apart from a certain momentum that tends to maintain the demand for a therapeutic agent once it has become available, there appear to be good grounds for believing that the sulphonamides have secured a permanent place in medicine, even if a less conspicuous one than had penicillin not been introduced.

Disadvantages of the sulphonamides not shared by penicillin include their liability (greater or less according to the compound used) to cause nausea and vomiting, sensitisation phenomena such as drug fever and skin rashes, nervous effects such as headaches, dizziness and depression, and tissue damage (jaundice, peripheral neuritis); they may also have untoward effects on blood cells and bone marrow. They are ineffective against certain organisms such as *Cl. œdematiens* and less active than penicillin against others (for example, *Staphylococcus aureus*).

Practical Advantages

On the other hand, penicillin is inactivated by acids, alkalis, metals and hydrogen peroxide, and is for that reason unsuitable for routine use by oral administration. It has to be injected, and the intervals between the injections are unpleasantly short, virtually necessitating hospitalisation of the patient. Penicillin is also without effect against bacillary dystentery and coliform infections. For routine administrations, therefore, the sulphonamides, which are

1. Stable
2. Easily maintained in adequate concentration by oral or simple parenteral administration, and
3. Free from any need of special handling or storage precautions

are likely to hold their own, particularly in private medical practice, and in places where penicillin is not readily available or hospitals few and distant. Members of the group appear to have prophylactic effects in meningococcal meningitis, and to offer some encouragement for hope of beneficial results in scarlet fever and acute rheumatism. A recent observation that, despite the inactivity of the sulphonamides as a class against malaria, sulphadiazine is active against the late (exoerythrocytic) stages of the malarial parasite, may offer a fruitful field for research, whilst work is continuing

on possible synergism between the sulphonamides and penicillin in urinary infections caused by organisms other than coliform bacteria. A table summarising the preferential uses of the principal sulphonamides appears on pp. 336-37.

Employment of Disabled Persons

THE percentage of disabled persons which an employer of twenty or more workers must engage under the provisions of the Disabled Persons (Employment) Act, 1944, has been raised, as from September 1, from 2 per cent. to 3 per cent. This means that an employer of twenty or more persons who does not already employ a 3 per cent. quota of registered disabled persons will be required to allocate any vacancies which occur on his staff to such persons until his quota is reached. Exception is made for the reinstatement of former employees, and for the engagement of non-registered persons, by permission of the Ministry of Labour and National Service, where no suitable registered disabled person is available for the job.

It is laid down in the Act that a registered disabled person may not be discharged by his employer without "reasonable cause," if the latter employs less than his 3 per cent. quota, or if such a discharge would bring him below that figure.

Vacancies for registered disabled persons may be filled by an employer who wishes to make up his deficit by notifying the vacancy to a local office of the Ministry of Labour and National Service, or direct, in which instance he may satisfy himself that the person is, in fact, registered by examination of the certificate held by the prospective employee.

The quota of disabled persons may be calculated as follows: A fraction of less than one-half is ignored; a fraction of one-half or more counts as one unit. Hence, 3 per cent. of twenty, being equal to three-fifths, the employer of twenty workers would have a quota of one disabled person, whereas an employer of fifty workers would require to take two disabled persons. On a total staff of eighty-four, an employer would be liable to engage three disabled persons. Certain occupations are designated as specially suitable for disabled persons.

Trends of Infectious Disease

IN a paper on recent trends in the incidence of infective fevers, Dr. W. H. Bradley ("Practitioner," September, p. 163) (senior medical officer, Ministry of Health), points out that the biennial rhythm of measles epidemics, disturbed during the war, has returned, and the coming winter "should be an epidemic season." Further, the incidence of whooping cough appears to be rising, and uneasiness exists over poliomyelitis during the autumn. Downward trends in pneumococcal and streptococcal disease, which anticipated chemotherapy, are to some extent offset, the writer states, by the prevalence of cerebrospinal fever in spite of chemotherapy. The main enemies amongst communicable diseases, he continues, are tuberculosis, influenza, and the great group of respiratory infections, while the need remains for maintaining guard against plague, typhus, yellow fever, smallpox, relapsing fever, cholera, and typhoid, although these are at present of little moment in Britain.

It is profitable to compare these observations with a report "On the State of the Public Health During Six Years' of War," reviewed on p. 332 of this issue. Tuberculosis is there reported to have renewed its downward trend, typhoid fever in 1944 was "less prevalent than in any pre-war year," typhus was limited to laboratory workers working on the disease, to returning prisoners of war, and to medical students who volunteered for relief work at Belsen and other camps. In view of the six years of war strain on the nation and on its medical services, the statistics contained in the report fully bear out Sir Wilson Jameson's description of "indeed a miracle."

Industrial Atomic Energy.—News that atomic energy for industrial purposes is now available in the U.S.A. at a cost only 25 per cent. higher than that of energy produced from coal has caused widespread interest, according to a New York correspondent of the "Manchester Guardian". The cost, it is stated, can be lowered materially, and further, the anticipated rise in coal costs will help to wipe out the present price difference. Industrial use of atomic energy may have an important effect on the decentralisation of industry.

THE LONDON HOSPITAL DRUG GARDEN

The variety of drugs under cultivation, ease of access to the specimens, and general attractiveness, are outstanding features of the materia medica garden of the London Hospital, Whitechapel, London, E.1. The Head of the pharmacology department of the Hospital's medical school, who is responsible for the garden, states that the garden is probably the only one of its kind in Britain, in so far as it is attached to a medical school, and is devoted exclusively to drugs.

As it was felt that doctors were tending to regard drugs as "synthetic preparations which travellers bring round in bags", the garden was planned in the early days of the war with the aim of creating a living interest in materia medica, and of demonstrating as far as possible to the students to what extent pharmacology and therapeutics were still dependent on nature, and on imports of herbal drugs.

The garden is of south aspect, protected on the three other sides, and is situated in the main quadrangle of the hospital, where it should be seen, at least, by medical and nursing students frequently passing through. After lying for a long time covered with debris and mortar from bomb damage, it has emerged again as two crescent-shaped plots fully stocked with plainly labelled plants, and crossed with slabbed paths at frequent intervals for easy access to specimens.

Competing for first place at the time of the writer's visit (early September) were the bush of *Atropa belladonna,* some 5 ft. in height, and bearing a heavy crop of fruits; specimens of fennel of almost equal height, with large aromatic fruiting heads; and sturdy examples of castor oil plants producing their diœcious inflorescences

Three varieties of digitalis were represented, namely *purpurea, lanata* and *alba,* with the adulterant mullein growing alongside. A healthy crop of stramonium growing to a height of about 3 ft., and producing numerous "thorn-apple" fruits, examples of *Hyoscyamus niger, Atropa alba* and *Solanum dulcamara* were among other solanaceous drugs growing. Difficulty had been experienced in growing *Glycyrrhiza glabra,* of which there was, however, a specimen. A bed of *Papaver somniferum* had produced a forest of fruiting heads, but inspissation for production of opium had not met with success.

Among other "official" drugs growing were *Rheum palmatum, Aconitum napellus, Anthemis nobilis, Linum usitatissimum* (the seeds of which were about to be collected), *Valeriana officinalis, Carum Carvi,* while unofficial drugs included *Papaver rhœas,* rue, *Mentha piperita,* broom, *Lavandula officinalis* (in the fruiting stage), *Thymus vulgaris, chenopodium* and *pennyroyal.*

The use of the garden in teaching is shown by the following exercises. A student is given a fruit stated to contain an alkaloid which will affect the heart (e.g. belladonna fruit) and he is instructed to identify the fruit; demonstrate physiologically the alkaloid's action on the frog's heart; and to write on the drug's pharmacology and therapeutics. Other examples are the investigation of the cardiac action of principles in digitalis leaves, the recognition of a fixed oil in castor oil beans, and a purgative principle in specimens of rhubarb.

Castor-oil plant in the garden, showing inflorescences

STREPTOMYCIN TRIALS IN THE UNITED STATES

From An American Correspondent

A LIMITED commercial distribution of streptomycin which is to be carried out in the United States in September, according to an announcement of the Civilian Production Administration, will be effected through 1,600 general hospitals. The drug will be obtainable by physicians from their local hospitals under a distribution plan intended to benefit the greatest number of patients. Hitherto, streptomycin had been distributed only to the Army, Navy, Public Health Service, Veterans' Administration and National Research Council. Although physicians have recommended the drug for tuberculosis, until now the Production Administration has indicated that the supply was not sufficient for general use against the condition.

Nature of Streptomycin

Mr. S. A. Waksman (Professor of Microbiology, Rutgers University) together with co-workers Messrs. Schatz and Bugie, described in 1944 an antibiotic produced by the "ray fungus," *Actinomyces griseus*. They named the compound streptomycin. Streptomycin gave promise of being like penicillin a valuable systemic anti-infective. An active culture usually contains 50 to 200 units of streptomycin per mil of medium (equivalent to 50 to 200 gm. of pure streptomycin base). The units were originally defined in terms of inhibition of a standard strain of *Escherichia coli* in a glucose-free nutrient broth or agar. The toxicity of streptomycin to animals was described as "significantly low". Streptomycin, injected in daily doses of 50,000 units (50 mgm. of the pure base) per kilo for one month, was well tolerated by mice, rats, and monkeys when given parenterally. Injected subcutaneously, 100 units (100 microgm.) gave protection to mice against 10,000 lethal doses of the pathogen; 70 per cent. of the streptomycin was excreted in the urine in five to six hours. Streptomycin showed a marked protective effect in a variety of infections caused by both gram-positive and gram-negative bacteria. Helmholz (Mayo Clinic, Rochester, Minn.) concluded from his observations that streptomycin should prove to be the most useful urinary antiseptic so far developed. The sulphonamide compounds, he stated, "have approached the therapeutic ideal in simplicity of administration and lack of necessary conditions of acidity or alkalinity of the urine, but have fallen short of it mainly because of their ineffectiveness in infections with *Streptococcus fæcalis* and *Pseudomonas æruginosa*". The latter is most resistant to urinary antisepsis. Examination of a twenty-four-hour specimen of urine from a patient who had been taking 2,000,000 units of streptomycin daily for weeks, showed it to contain 1,330 units of streptomycin per c.c; after two months it contained 1,175 units and after three months 1,131 units. The concentration of streptomycin in this specimen was at least ten times that required to kill the bacteria that were being studied. Urine containing less than 66 units of streptomycin per c.c. did not interfere significantly with the growth of the various bacteria. Administration of 100 units of streptomycin is probably sufficient to reduce rapidly the number of any bacteria found in urinary infections; 235 units, which is only about one-fifth of the concentration that can be obtained in the urine, is sufficient, even with massive inoculations, to sterilise the infected urine. At concentrations of 1,330 units per c.c. the two most resistant bacteria, *Streptococcus fæcalis* and *Pseudomonas æruginosa*, are killed off within an hour. With known bactericidal power of the excreted urine after dilution of 1 : 10 for the most resistant bacteria found in urinary infection, states Helmholz, the prospects of successful treatment are far above those of any other urinary antiseptic so far tested.

Indications

The more important indications for penicillin are infections due to staphylococci, streptococci, pneumococci, gonococci, meningococci, and the clostridia that cause gas-gangrene. It is also effective against the spirochæte of syphilis and other spirochætes. Penicillin has shown no significant effectiveness against tuberculosis, or against such organisms as *B. typhosus, B. dysenteriæ, B. proteus, B. paratyphosus A, B. enteritidis, B. pyocyaneus*, etc. Streptomycin, so far, has shown definite therapeutic effects in meningitis due to *H. Influenzæ (Pfeiffer's bacillus)*; Freidländer's bacillus infections (resistant to penicillin); urinary-tract infections; peritonitis due to gram-negative bacilli; tularæmia. The decision as to its clinical

value in tuberculosis, typhoid fever, undulant fever, intestinal infections, and various other diseases must await further investigation. Heilmann and co-workers found that streptomycin could be administered by intermittent intravenous injections of 100,000 to 200,000 units dissolved in 10 to 20 c.c. of physiological saline every three hours with satisfactory results. However, in their opinion the intravenous route had no advantages over intramuscular or subcutaneous injections. Under most clinical circumstances they believed that intramuscular administration would prove to be the method of choice. For this purpose, 100,000 units of streptomycin in 1 c.c. of physiological saline could be administered every three hours. A standard 22-gauge needle, 2½ in. long, was used for the injection.

Hirshfeld and his collaborators employed streptomycin in the treatment of fifty-six patients, some of whom were chosen because they had lesions which were probably hopeless. Others were treated because they had infections for which there was no satisfactory treatment; still others were included in the hope that streptomycin might prove to be better than the current treatment. If bacteræmia or septicæmia is present, streptomycin sterilises the blood stream promptly, provided the organisms are susceptible to its action. Streptomycin does not sterilise walled-off collections of pus, even though the organisms involved are susceptible to its action. The results in peritonitis and various types of infections of the soft tissues were described as disappointing by Hirshfeld and his collaborators. Failure can be attributed to the presence of resistant organisms in the mixture of bacteria, particularly non-sporulating anærobes. Twelve patients undergoing streptomycin therapy exhibited manifestations of toxicity.

Streptomycin was also administered by nebulisation. Concentrations of 50,000 units per c.c. were found to produce no irritation of the mucosa of the trachea and bronchi. As much as 500,000 units per day was given without interruption for periods as long as four weeks in the treatment of tuberculosis involving larynx, trachea and bronchi. During this period, streptomycin was not demonstrable in the blood stream, and the amount in the urine was negligible. A report on thirty-four human cases of tuberculosis from the Mayo Clinic concluded with the view that the drug exerted a limited suppressive effect on the disease.

INDIAN DRUG RULES CRITICISED

CERTAIN provisions of the Drugs Rules, 1945, issued by the Central Government of India under powers conferred by the Drugs Act (India), 1940, are causing concern among importers into India of pharmaceutical preparations of British and American origin. In a letter addressed to the secretary to the Department of Health, Government of India, recently, the Pharmaceutical and Allied Manufacturers' and Distributors' Association, Ltd., criticised some of the Rules and asks for official interpretations of others. The Association, which is officially recognised by the Government of India, complains that it was not notified of the date upon which the Rules were to take effect. [According to "Indian Information," May 15, 1946, the Rules are due to come in to effect, except in North-West Frontier Province, Orissa and Sind, on February 1, 1947.] Nor was the Association informed of the publication in December 1945 by the Government of India of "Drug Standard Control" which sets out the Rules together with explanatory memoranda thereon. The Rules define "wholesale dealing" as "sale to a person who buys for the purpose of selling again." Such sales are not regarded by the Association as retail transactions, since they are subject to discount. If the present interpretation is maintained, importers whose organisation is not designed to deal with such work may be obliged to stop this class of supply.

Recommendations Ignored

It will be recalled that, in 1944, a committee of the Pharmaceutical Export Group examined the Draft Rules, and made a number of recommendations. The definition of "wholesale dealing" suggested by the committee was as follows: "Sale by way of wholesale dealing means (*a*) sale to a purchaser who buys for the purpose of selling again or for use by an industrial or commercial undertaking, and (*b*) sale to a medical, dental or veterinary practitioner, hospital, dispensary, nursing home or technical institution." THE CHEMIST AND DRUGGIST (1944. II. 406) commented at the time that this definition contrasted favourably with the elaborate provisions for the sale of First Schedule Poisons to medical practitioners, dentists and veterinary

surgeons in Great Britain. It appears that the recommendation of the committee has not been implemented in the Rules as published.

The Rules refer frequently to "The Central Drugs Laboratory," and to various licensing authorities, and lay down the form in which various applications are to be made. Pointing out that importers have to plan their production at least a year ahead, the letter inquires whether the Central Drugs Laboratory referred to is, in fact, in existence; what licensing authorities, other than the Laboratory, exist; and whether supplies of the necessary forms are available. Unless registration under the Rules can be speedily effected, states the letter, it will be quite impossible for importers to arrange for their products to be labelled in accordance with the provisions of the Rules. The question arises, also, whether stocks already in the country at the time the Rules come into force may be disposed of without complying with the new labelling regulations.

Points at Issue

Questions of detail raised in the letter include:

(1) Whether a preparation, such as concentrated extract of liver, not conforming to any standard preparation, and incapable of being represented by a formula, would be accepted as not requiring registration if labelled: "This preparation is equivalent to "x" gm. of raw liver."

(2) Whether it would be sufficient to state the proportion of active ingredients only of a preparation, e.g., whether it would be permissible to describe an emulsion of benzyl benzoate, without disclosing the emulsifying agent.

(3) Whether the portion of Rule 96, which reads " . . . except where otherwise provided in these Rules, the name of the drug or any distinctive letters intended to refer to the drug shall not be etched, painted or otherwise indelibly marked on the container," would prevent the sale of such preparations as Sloan's liniment, Phillips' Milk of Magnesia, etc., in containers in which this wording is embossed in the actual glass of the container. The letter points out that enormous stocks of such bottles exist, and prohibition of their use would cause considerable hardship to the manufacturers concerned. Moreover, the time available before the Rules come into force is insufficient to allow the manufacturers to market their products in plain bottles.

A Suggested Alteration

The Association suggests that Rule 96(3) should be altered to read as follows:—

"Provided that, except where otherwise provided in these Rules, where the name of the drug or any distinctive letters intended to refer to the drug is or are etched, painted, embossed or otherwise indelibly marked on the containers, the said containers may not be refilled with any drug, except by the manufacturer with the original drug contained in the container." Such a rule, it is claimed, would be of value in preventing the fraudulent substitution which is not uncommon at present.

(4) Whether the contents of an ampoule used by injection would be considered "a medicine for internal use" under par. 97. Otherwise the amount of lettering required on each ampoule would appear excessive or impracticable.

(5) Whether Par. 106, which reads, "No drug may purport or claim to cure any disease or ailment specific in Schedule J . . ." would prohibit the supply for the benefit of the medical profession of technical literature concerning drugs used for the treatment of such diseases. It is pointed out that although there is a similar rule in the United Kingdom, the publication of such technical literature, not intended for the lay public, is permitted.

(6) Whether previous recommendations concerning Rule 97(a) have been considered. According to the present wording of the Rule, it would be necessary for a vial containing a number of doses of a drug for injection, and containing the customary 0.5 per cent. of phenol as a preservative, to be labelled "Poison." Such labelling, says the letter, is not in accordance with United Kingdom practice, where "Phenol less than 2.5 per cent." is exempt from the Regulations.

The diseases listed in Schedule J are as follows: Blindness, Bright's disease, cancer, cataract, deafness, delayed menstruation, diabetes, epilepsy, female diseases (in general), fevers (in general), fits, glaucoma, goitre, gonorrhœa, heart diseases, high blood-pressure, hydrocele, infantile paralysis, leprosy, leucoderma, lockjaw, locomotor ataxia, lunacy, lupus, obesity, paralysis, plague, rupture, sexual impotence, smallpox, soft chancre, syphilis, tuberculosis, tumours and venereal diseases (in general).

MISCELLANEOUS INQUIRIES

Formulas given below may have been prepared for overseas subscribers and the inclusion of substances therein is no indication that they are available in Britain or, if available, permitted to be used for the purpose.

Registry of Business Names.—*A.S.*—The address of the Registry of Business Names for England and Wales is Bush House (West Wing), Aldwych, London, W.C.2.

Waterproofing Material. — *C.D.C.* — A waterproof material incorporating lead acetate and alum is made as follows:—Dissolve 3 oz. of alum in ½ gall. water and soak the fabric in the resulting solution. Then immerse the fabric in a solution of 4 oz. lead acetate in ½ gall. water. When dry, remove the white powder from the fabric by brushing.

Washing Nylon Brushes. — *I.C.S.*—Nylon hairbrushes should be washed in warm soapy water and the brush allowed to dry with the filament downwards. Although the filaments themselves will stand quite hot water, there is risk of damage to the wood, plastic, ivory or other back if the heat is too great.

Laxative Prune Syrup.—*K.H.S.*—The following is a recognised formula :—

Prunes	2 lb.
Water	4 pt.
Boil for twenty minutes, strain and add :—	
Sugar	5 lb.
Elixir cascara	1 lb.
Liquid extract of senna	1 lb.
Saccharin	dr. 1
Oil of coriander	min. 15
Oil of peppermint	min. 15
Simple syrup to 9 pints	12 oz.

Inexpensive Eau de Cologne.—*J.W.*—The following formula may meet your requirements :—

Citral	1 c.c.
Linalyl acetate	9 c.c.
Terpinyl acetate	2 c.c.
Ethyl anthranilate	1 c.c.
Rhodinol	5 c.c.
Menthol	0.5 gm.
Musk ketone	1.5 gm.
Iso-eugenol	1 c.c.
Neroli synthetic	10 c.c.
Isopropyl alcohol	500 c.c.
Water—freshly distilled—to produce	1000 c.c.

Powder the musk and shake with the oils until dissolved. Mix with the isopropyl alcohol and then gradually add the water, stirring all the time. Add 10 gm. vetivert root and shake occasionally. Mature one month and then filter; 1 per cent. benzoin R. (benzoin prepared perfumery use) could be used as a fixer instead of musk ketone.

Adhesive Containing Waterglass.—*M.P.E.*—Below are suggested formulas:

I

Casein	100
Sodium carbonate	12
Water	600
Dissolve and add—	
Solution of magnesium chloride (10 per cent.)	100
Water glass	8

II

Casein, with sufficient waterglass to form a soft paste.

Shampoos.—*S.C.M.*—Of the following formulas the first is for a saponaceous and the second for a soapless shampoo :—

I

Borax	20
Saponin	20
Sodium sesquicarbonate	40
Powdered soap	35
Perfume	q.s.

II

Sulphonated lauryl liquid T.A.	40
Water	60
Colour	q.s.
Eau de Cologne	q.s.

Wave-set.—*W.D.J.*—The following formulas for a bulk wave-set may meet your requirements.

I

Gum tragacanth	1.2
Alcohol	15
Glycerin	2
Water	83
Preservative	q.s.

II

Gum acacia	2
Borax	1
Alcohol	20
Water	77
Preservative	q.s.

Facial Mud-packs. — *H.S.* — Bentonite, suitably perfumed and mixed with water to yield a product of suitable consistency may be used as a facial pack. Witch hazel is an alternative to the water, and the addition of about 2 per cent. of magnesium oxide improves the consistency. The following is another formula :

Kaolin	5 oz.
Calamine	1 oz.
Sodium benzoate	7 gr.
Perfume	q.s.

Water is added to convert the product into a mud-pack before use.

OVERSEAS TRADE NEWS

Argentine Linseed Acreage.—An increase of 459,000 acres is shown in the first official estimate of the area sown to linseed in Argentina for 1946-47, states a report from Buenos Aires. The total area is estimated to be 5,036,000 acres.

U.S. Export Regulation.—The following articles may now be exported from the United States under general licence: Spearmint and other mint oils; citronella oil and other essential natural oils with the exception of jasmine.

Japanese Whaling Effort.—Two Japanese whaling fleets will leave for the Antarctic on November 7, expecting to catch 2,000 whales. The fleets, from Osaka and Nagasaki will go to specified international whaling grounds and are expected to return to Japan next April.

U.S. Insulin for German Diabetics.—The American occupation zone is to receive 17,000,000 units of insulin a month to cover the needs of 20,000 diabetics, a U.S. military government official stated in Berlin. Delivery of the insulin from the U.S. will solve one of the most urgent health problems in the zone, he added.

Denmark's Linseed Quota.—Denmark is to receive 3,000 tons of linseed oil and 70,000 tons of linseed cake of the 200,000 tons of oil (mainly linseed oil) and 600,000 tons of linseed cake bought by the International Food Council from Argentina, according to the Danish representative on the international food organisation.

Dutch-Italian Trade Agreement.—A message from the Hague states that a monetary and trade agreement was signed between Holland and Italy on August 30. Italy will ship to Holland a range of goods including celluloid, chemical and pharmaceutical products and dyes. Holland will export to Italy crude iron, benzol, chemical products and dyes.

Brazilian Cashew Nut Industry.—North-Eastern Brazil is developing a cashew nut industry which may eventually compete with India for U.S. markets. Brazilian cashew nut shipments to the United States last year were 364 tons: by April of this year 384 tons had arrived. Imports from India are still large, however, amounting to 16,524 tons in the peak year 1940-41.

Norwegian Export Trade.—Norway's exports in the first twelve months since the liberation were higher than the average pre-war level, according to the Royal Norwegian Information Service. Exports in May 1946 totalled 108,300,000 kroner, against 11,300,000 kroner in the same month of 1945. The monthly average before the war was 92,000,000 kroner.

U.S. Synthetic Glycerin.—Synthetic glycerin will be produced in the U.S. for the first time on a scale large enough for general industrial distribution when definite arrangements made by a major petroleum refiner are put into effect, it is reported from New York. The plant, which is scheduled to be erected on the West coast at an estimated cost of five million dollars, will eventually have an annual capacity of 30 million pounds; production, however, is expected to commence at a reduced rate early in 1948.

Anti-Malarial Drugs in India.—A message from New Delhi states that the continued shortage of quinine in India is evidenced by the Central Government's stock of only 8,000 lb., compared with pre-war annual requirements of more than 200,000 lb. Only one-third of this volume was obtained from domestic sources before the war, the remainder being imported. It is stated that 700,000 Paludrine tablets have been purchased abroad so far this year to combat the malaria menace, and have been distributed for experimental purposes. In addition, mosquito breeding grounds in the country are to be sprayed with 300 tons of DDT which has been purchased from Army surplus stores.

U.S. Streptomycin Supply.—An increased supply of streptomycin is expected to be available in the United States by October, following the starting of new plants at Rahway, N.J., by Merck & Co., Inc. Production of the drug in U.S.A. during June was less than had been expected, but sufficient is available, it is thought, to put into operation the plan for distributing it through selected hospitals, scheduled to commence on September 1 (see p. 342). During May production totalled 38,750 gm. While sufficient streptomycin has not yet been available for treating tuberculosis, experimental work gives increasing promise of the drug's value in this disease. According to a recent statement by Dr. C. S. Keefer, Evans Memorial Hospital, Boston, Mass. The cost of treating a case of tuberculosis for three months would be about $4,000 (approximately £1,000).

TRADE REPORT

Spot quotations for pharmaceutical chemicals represent the prices for wholesale quantities of standard quality. Prices of crude drugs and essential oils vary as to brand or grade.

28 Essex St., W.C.2, September 11

TRADING conditions on the London markets have undergone little change during the past week. Spot business has been moving along on a limited scale, but inquiry for the export trade has continued exceptionally good. The price position retains its stable character with fluctuations either way amounting to small fractions of the price. No further information has been received from official sources regarding the list of CRUDE DRUGS about to be decontrolled, to which reference was made last week. Apart from the increase in makers' prices for BISMUTH SALTS noted last week, PHARMACEUTICAL CHEMICALS remain at the levels recently recorded. No information has been received so far regarding a possible reduction in the price of MERCURIALS; the Ministry of Supply remains the sole importer and distributor of the metal and the price continues at the level fixed in October of last year. On the export side makers of pharmaceutical chemicals are steadily increasing their output to meet enhanced demand from this source.

Crude Drugs

The past week has seen little change in these markets, either in prices or in the volume of business transacted. Inquiry for forward delivery has again been remarkably good. A sample of Japanese-type AGAR is reported to have reached the London market, presumably from Chinese sources. The quality of the specimen is stated to be good but the price mentioned is above the limit permitted under the present price control Order. The future of the Japanese agar industry is obscure but any developments in this connexion would be received with considerable interest on the London markets. Spot and forward prices for ARECA NUTS are a shade easier on the week. No developments have occurred in the position of the BALSAMS. BENZOIN continues in good inquiry with afloat material reported to be selling quite well at the price recently quoted. B.P. quality CAMPHOR is urgently required by consumers, but the market is bare of supplies; Chinese crude material is available. CARDAMOMS are exceedingly dull with some near-at-hand material tending to ease spot prices. Considerable quantities of new season's CASCARA SAGRADA are reported to be almost due to arrive. CLOVES are fractionally dearer for forward delivery. GUM ACACIA is quiet with prices of all grades unchanged. KAMALA has reappeared among the list of crude drugs with a mention of a parcel afloat. Shipment quotation for Cochin NUX VOMICA is about one shilling per cwt. below the figure given last week. Most reports agree that some of the RHUBARB ROOT recently reaching the London market is of very poor quality. Quiet conditions obtain for TRAGACANTH with prices of selected and medium grades unchanged. Belgian VALERIAN ROOT is a shade easier on the spot. Some varieties of BEESWAX are tending higher.

Essential and Expressed Oils

The situation in these markets shows very little change on the week, with no further additions to the list of decontrolled essential oils. As noted last week, CASTOR and LINSEED oils have been substantially advanced for the current control period.

Exchange Rates on London

Bank of England fixed rates at the opening on Wednesday morning were:—

Centre	Quoted	Sept. 11
*Alexandria ...	Piastres to £	$97\frac{3}{8}$–$97\frac{5}{8}$
Amsterdam ...	Florins to £	10.68–10.70
*Bombay ...	Pence to rupees	1-$5\frac{15}{16}$-1-$6\frac{1}{16}$
Brussels	Francs to £	$176\frac{1}{2}$–$176\frac{3}{4}$
Copenhagen ...	Kroner to £	19.32–19.36
Dutch East Indies	Florins to £	10.68–10.70
Dutch West Indies	Florins to £	7.58–7.62
*Hong Kong ...	Pence to $	1-$2\frac{15}{16}$-1-$3\frac{1}{16}$
Oslo	Kroner to £	19.98–20.02
Paris	Francs to £	479.7–480.3
Lisbon	Escudos to £	99.80–100.20
Montreal ...	Dollars to £	4.02–4.04
New York ...	Dollars to £	$4.02\frac{1}{2}$–$4.03\frac{1}{2}$
Rio de Janeiro ...	Cruz to £	75.4416
*Singapore ...	Pence to $	2-$4\frac{3}{32}$-2-$4\frac{1}{4}$
Stockholm ...	Kroner to £	14.47–14.50
Zurich	Francs to £	17.34–17.36

* Free market rates.

U.S. Drug and Chemical Report

New York, September 6

CHEMICAL production in the U.S. this year is expected to exceed that of any peacetime year and, despite the decrease in anticipated production because of work stoppages and material shortages, the value of the output may be double that of 1939, according to the Department of Commerce. The manufacture of new products may be delayed for

some time to come by the continuing shortages of materials for the construction of new plants, it is stated.

The largest single consignment of MERCURY since the end of the war (more than 8,000 flasks) is now being unloaded here; the material, stated to be of Spanish and Italian origin and to have been seized during the war, is scheduled to be placed into export channels immediately. Meanwhile, unconfirmed reports indicate that a syndicate between Spanish and Italian producers of this metal is soon to be formed. STREPTOMYCIN is to be distributed to depot hospitals throughout the country from September 1 under a plan similar to that used for the allocation of penicillin. The price will be about $16 per gm. compared with the $25 per gm. level during investigation stages, it is reported. In the meantime, the Department of Commerce states that export shipments of PENICILLIN during July were double the amount allocated for home consumption. 13,350,000 vials, valued at $8,750,000 were reserved for export and represented a value ten times that of all U.S. drug exports during an average month in 1938. About 6,000,000 vials went to South America, a similar quantity to Europe and 550,000 vials to the British Empire.

Little activity has been shown in MENTHOL this week and the spot price range remains unchanged at $8.25 to $8.50 per lb. Certain prescription items have moved into a tighter position with the chief consuming season approaching, and the firmness of medicinal COD-LIVER OIL has been maintained. Offerings of this latter material from Iceland and Newfoundland are said to be limited while the Norwegian product is virtually unobtainable. Offerings of Chinese powdered and slab CAMPHOR which have been received here are beyond buyers' ideas and few orders have been placed. The suspension from price control of shoe polish, furniture polish, industrial wax finishes and other products containing 3 per cent. or more of the imported vegetable waxes CARNAUBA, OURICURI and CANDELILLA, has been announced by the Office of Price Administration. The cost of these waxes has more than doubled since decontrol in October 1945, and world prices generally are incompatible with a re-imposition of maximum prices, the O.P.A. explained. As a result of the new Order, a substantial improvement in demand for vegetable waxes is expected, and prices of most grades of carnauba have already hardened.

The bulk of recent arrivals of Bourbon VANILLA BEANS has already moved into consuming channels and virtually no material is left for resale; supplies from the Mexican crop will not reach this market until next spring. Large-scale detentions of imported drugs by the Food and Drug Administration are serving to maintain high prices on many items. Activity on the ESSENTIAL OILS market continued above the usual level of the summer months, although the critical container position was a hindering factor. The very limited quantities of AROMATIC CHEMICALS available prevented many manufacturers from meeting consumers' demands.

The market for INDUSTRIAL CHEMICALS has been featured by a strong tone as a result of the continued heavy demand from consumers in many major industries. The SODIUM PHOSPHATES, the BICHROMATES, BORAX, BENZOATES and BORIC ACID are particularly difficult to locate in any quantity. Many items will remain in short supply throughout the current year while the trade fears that the extremely tight alkali position will continue for several years. Heavy demand for DYESTUFFS both at home and from abroad is reflected in the tightness in most coal-tar intermediates. There was somewhat larger than normal buying interest displayed in agricultural chemicals during August, it is reported.

Pharmaceutical Chemicals

ACETANILIDE.—Makers' prices are unchanged. Powder, 2s. 5d. per lb., and crystals, 2s. 6d.

AMPHETAMINE.—Makers' price quoted at the former rate of 150s. per lb.

ASPIRIN.—Home market prices steady; quotations per lb., in quantities of 28-lb.-1-cwt., are (containers in brackets): 4s. 1½d. (1-lb.); 4s. (4-lb.); 3s. 11d. (7-lb.); 3s. 10½d. (14-lb.); 3s. 9½d. (28-lb.).

ASPIRIN TABLETS.—Makers quote bulk supplies per 1,000 as follows: Under 5,000, 3s. 6d.; 5,000 and over, 3s. 4d.; 10,000, 3s. 3d.; 25,000, 3s. 1d.; 50,000, 3s.; 100,000, 2s. 11d.; 250,000, 2s. 10½d.; 500,000, 2s. 10d.; 1,000,000, 2s. 9d.

CHLORAL HYDRATE.—Current prices are as follows: 1 cwt., 2s. 10d. per lb.; 56 lb., 4s.; 28 lb., 4s. 2d.; 14 lb., 4s. 6d.; 7 lb., 4s. 9d.; less, 5s. 3d.

CITRATES.—Quoted unchanged. POTASSIUM, in quantities of 28 lb.-1 cwt., is quoted per lb., as follows (containers in brackets): 3s. 8½d. (1-lb.); 3s. 7d. (4-lb.);

3s. 6d. (7-lb.); 3s. 5½d. (14-lb.); 3s. 4½d. (28-lb.). FERRI ET AMMON. CIT. B.P., 3d. per lb. above; SODIUM, B.P., 3d. per lb. below; POWDER, 1d. per lb. extra. Prices net, one month.

CODEINE.—Prices per oz. current in the home market are: PURE, ½ oz., 51s. 9d.; 1 oz., 49s. 3d.; 2 oz., 47s. 9d.; 3 oz., 47s.; 4 oz., 46s. 9d. HYDROCHLORIDE, ½ oz., 46s. 4d.; 1 oz., 44s.; 2 oz., 42s. 6d.; 3 oz., 41s. 9d.; 4 oz., 41s. 6d.; PHOSPHATE, ½ oz., 40s. 9d.; 1 oz., 38s. 3d.; 2 oz., 36s. 9d.; 3 oz., 36s., 4 oz., 35s. 9d. HYBROBROMIDE and IODIDE, as PURE; SULPHATE, as HYDROCHLORIDE.

CREAM OF TARTAR, B.P.—Maximum controlled prices: sale by wholesale, 10 cwt. or more, 268s. per cwt.; 1 to 2 cwt., 271s. per cwt.; 56 lb. to 1 cwt., 2s. 5½d. per lb.; 7 to 14 lb., 2s. 7d. per lb., delivered.

DIAMORPHINE.—Prices per oz. are: PURE, ½ oz., 54s. 6d.; 1 oz., 52s.; 2 oz., 50s. 6d.; 3 oz., 49s. 9d.; 4 oz., 49s. 6d. HYDROCHLORIDE, ½ oz., 50s. 3d.; 1 oz., 47s. 9d.; 2 oz., 46s. 3d.; 3 oz., 45s. 6d.; 4 oz., 45s. 3d.

ETHYLMORPHINE.—Makers' prices per oz. in the home market are: PURE, ½ oz., 57s. 6d.; 1 oz., 55s.; 2 oz., 53s. 6d.; 3 oz., 52s. 9d.; 4 oz., 52s. 6d. HYDROCHLORIDE, ½ oz., 49s.; 1 oz., 46s. 6d.; 2 oz., 45s.; 3 oz., 44s. 3d.; 4 oz., 44s.

GLUCOSE.—Powdered monohydrate for the home trade is quoted as follows: 14 lb.-28 lb., in 14-lb. lots, 11¾d. per lb.; 28 lb.-112 lb., in 14-lb. lots, 11½d.; 28-lb., 10¼d.

HOMATROPINE.—Makers' prices per oz. are as follows (prices per gram in brackets): ALKALOID.—1 oz., 97s. 6d.; 4 oz., 92s. 6d.; 16 oz., 87s. 6d.; (4s.). HYDROCHLORIDE, HYDROBROMIDE and SULPHATE.—1 oz., 75s.; 4 oz., 70s.; 16 oz., 65s. (3s. 2d.).

IODINE PREPARATIONS.—Current rates per lb. are as follows: POTASSIUM IODIDE, B.P.—112 lb., 9s. 6d.; 28 lb., 10s.; 14 lb., 10s. 6½d.; 7 lb., 12s. 0½d.; 4 lb., 12s. 6½d.; smaller quantities, 13s. per lb. SODIUM IODIDE, B.P.—28 lb., 10s. 5d.; 14 lb., 10s. 11½d.; 7 lb., 12s. 8½d.; 4 lb., 13s. 4½d.; smaller quantities, 14s. 2d. IODOFORM, B.P.—28 lb., 13s. 7d.; 14 lb., 14s. 1½d.; 7 lb., 16s. 3½d.; 4 lb., 17s. 1½d.; smaller quantities, 17s. 11d. IODOFORM CRYSTALS, 2s. per lb. above powder prices. IODINE RESUBLIMED, B.P.—112 lb., 10s. 11d.; 28 lb., 11s. 5d.; 14 lb. 11s. 11½d.; 7 lb., 13s. 9½d.; 4 lb., 14s. 4½d.; smaller quantities, 15s. 10d.

LACTATES.—Prices are as follows: LACTIC ACID.—Six-winchester lots, 3s. per lb.; smaller quantities, 3s. 1d. CALCIUM LACTATE.—Small quantities, 2s. 5d. per lb. CALCIUM SODIUM LACTATE. — Powder, small lots, 3s. 7d. per lb.; 14 lb., 3s. 4d.; 28 lb., 3s. 2d.; granular, one penny per lb. extra.

MANDELIC ACID.—In good demand. Current quotations are as follows: 1 lb., 22s. per lb.; 4 lb., 20s. 3d.; 7 lb., 18s. 6d.; 14 lb., 16s. 9d.; 28 lb., 15s.

METHYL SALICYLATE.—In fair supply. Smalls are quoted at 2s. 6d. per lb.; winchesters at 2s. 1½d.; 56 lb., in demijohns, 2s.; 1 cwt., in demijohns or carboys, 1s. 11½d.; 5 cwt., 1s. 11d. All prices net.

MORPHINE.—Prices per oz. current in the home market are: PURE, ½ oz., 55s. 3d.; 1 oz., 52s. 9d.; 2 oz., 51s. 3d.; 3 oz., 50s. 6d.; 4 oz., 50s. 3d. HYDROCHLORIDE, ½ oz., 46s. 9d.; 1 oz., 44s. 3d.; 2 oz., 42s. 9d.; 3 oz., 42s.; 4 oz., 41s. 9d. BIMECONATE AND TARTRATE, as PURE; ACETATE, HYDROBROMIDE and SULPHATE, as HYDROCHLORIDE.

PHENOLPHTHALEIN.—Current prices are unchanged: 1 cwt. 4s. 10d. per lb.; 28 lb., 5s.; 14 lb., 5s. 3d.; 7 lb., 5s. 6d.

POTASSIUM PERMANGANATE. — Current rates are as follows: B.P. (in 1-cwt. drums), 1 cwt. and over, 1s. 8½d. per lb.; 3 cwt. and over, 1s. 8d. TECHNICAL (in 1-cwt. drums), 1 cwt. and over, 166s. 3d. per cwt.; 3 cwt. and over, 161s. 9d.; 5 cwt. and over, 159s. 3d.; 1 ton and over, 156s. 9d.; 4 tons and over, 154s. 3d. TECHNICAL (in 5-cwt. drums), 5-cwt. and over, 156s. 9d. per cwt.; 1 ton and over, 154s. 3d.; 4 tons and over, 152s. Terms net, carriage paid to nearest station, containers extra and returnable.

PULV. BISMUTH. CO., N.F.—Current rates per lb. in the home market, in quantities of 28 lb.-112 lb., are as follows (containers in brackets): 2s. 9d. (1-lb.); 2s. 8d. (2-lb.); 2s. 7½d. (4-lb.); 2s. 6½d. (7-lb.); 2s. 6d. (14-lb.); 2s. 5d. (28-lb.).

SANTONIN.—Quoted unchanged: 5 kilos, £44 per kilo; less than 5 kilos, £45; 1 kilo, £46; half-kilo, £47; quarter kilo, £48 per kilo, carriage paid in U.K.

THEOBROMINE.—Prices per lb., in quantities of 28 lb., are as follows: ALKALOID, B.P.C., 30s. 6d.; CALCIUM SALICYLATE, 19s. 3d.; SODIUM SALICYLATE, 19s. 3d.

VANILLIN.—Prices unchanged. 5-cwt., 22s.; 1 cwt., 22s. 3d.; 56 lb., 22s. 6d.; smaller parcels, up to 23s. 6d. per lb., as to quantity.

Crude Drugs

AGAR.—A sample of original Japanese quality is reported to have reached London, together with an offer from China. The price asked, however, is above the permitted limit of 30s. per lb. The question of supplies of the Japanese product, however, has been taken up and developments are awaited. It is understood that agar is one of the products that will remain under control.

ALOES.—Limited supplies of Curaçao are stated to be available. Values are maintained with c.i.f. quotations at 250s. per cwt., and spot from 290s. A price of 150s. per cwt., c.i.f., is now being asked for Cape for shipment.

ANTIMONY.—Market is steady at unchanged values with business fair. Minimum 99.6 per cent. regulus, £132 10s. per ton; minimum 99 per cent., £125; 70 per cent., crude, for the home trade, £105 per ton, delivered.

ARECA NUTS.—Business is quiet with values a shade easier at 65s. per cwt. on the spot; shipment, 47s. 6d., c.i.f.

BALSAMS.—*Tolu* and *Copaiba* are still unobtainable. Market is quiet with quotations unchanged. *Canada* is quoted on spot at 14s. 6d. per lb., and *Peru,* duty paid, at 8s.; in bond, 7s. 6d.

BENZOIN.—Inquiry continues. A quantity is stated to be afloat with the price steady at £25 per cwt., landed.

BISMUTH.—The quotation for high-grade metal is steady at 9s. per lb., in minimum 5-cwt. parcels.

BUCHU LEAVES.—Market continues quiet, with the price steady at 4s. 9d. per lb., ex store.

CAMPHOR.—A good inquiry continues for material of B.P. quality, but none is available at present. Chinese crude, below B.P. quality, is offered at 11s. to 12s. per lb.

CARDAMOMS.—Aleppy seeds near at hand are available at 8s. per lb.; Mangalore heavy are offered on the spot at 6s. 6d. per lb.

CASCARA SAGRADA.—Ships due to arrive in port almost immediately are carrying considerable quantities of this season's peel, the price of which will be at 285s. per cwt., landed, duty paid. 1945, Lend-Lease material is still available at the unchanged price of 300s. per cwt., ex store.

CASCARILLA.—Some inquiries are noted and material is stated to be afloat. Quills are quoted on the spot at 2s. 9d. per lb.

CHAULMOOGRA.—*Hydnocarpus* may be obtained on the spot at 2s. per lb., in tins in cases.

CHILLIES.—Market quoted unchanged; occasional inquiry. Mombasa, spot sellers at 155s. per cwt.; shipment, September-October, 135s., c.i.f., buyers' licence.

CINNAMON.—Spot price of chips is steady at from 1s. 11d. to 2s. per lb., ex store.

CLOVES. — More inquiries, but the market is quiet. Zanzibar, London, spot sellers at 11½d. per lb.; afloat, 10½d.; shipment, September-October, fractionally dearer at 10½d. per lb., c.i.f., buyers' licence.

COCHINEAL.—Quiet market continues with prices steady. Spot, silvers offering at 5s. 6d. per lb., and blacks at 5s. 9d.

COCONUT (DESICCATED). — The maximum controlled prices continues at 74s. 8d. per cwt., ex store.

COCOA BUTTER.—Price continues to be fixed at 1s. 5½d. per lb., ex factory or warehouse, except under licence.

COLOCYNTH.—Market continues rather quiet with prices steady. Spot, good white pulp, is quoted at 2s. 7½d. to 2s. 10½d. per lb.

DIGITALIS LEAVES.—Portuguese continue to be quoted on spot at from 130s. to 140s. per cwt., ex store, and English-grown at 2s. 6d. per lb.

ERGOT.—Spot prices unchanged at 7s. per lb. Business is restricted in volume.

GALBANUM.—Supplies are quoted at 7s. 6d. per lb., in bond.

GINGER.—Market continues steady. Jamaican, No. 1, is quoted at 140s. per cwt., c.i.f., and African, at 82s. 6d. per cwt., ex store.

GUM ACACIA.—Business is still quiet with prices unchanged. Kordorfan cleaned sorts, steady on spot at 75s. per cwt.; bleached, steady at 150s.; Talha, cleaned, 42s. 6d.

GUM MASTIC.—Limited supplies are quoted on spot at 18s. 6d. per lb.

HENBANE. — Quoted unchanged on a slow market. Indian leaf is available on the spot at 250s. per cwt.; Egyptian (*muticus*), 90s. per cwt.

JALAP.—Offers are reported and prices are unchanged. Vera Cruz material, testing about 9 to 11 per cent., is reported to be on the way and the price asked is about 3s. 3d. per lb.

KAMALA.—A parcel afloat is quoted at 3s. per lb., landed.

KARAYA GUM.—Market remains quiet and unchanged. No. 1 Indian gum is quoted on the spot at 200s. per cwt.

KOLA NUTS.—Market has been quiet; values quoted unchanged. African quarters, 8d. per lb.; African halves, 6d.; Jamacian washed halves, 7d.

LIQUORICE ROOT.—Market quiet, quoted unchanged. Values steady. Natural Anatolian, spot, 85s. to 90s. per cwt.; cut, 110s.

MENTHOL.—The forward price of Brazilian material is in the region of 41s. to 42s. per lb., f.o.b., which would mean a c.i.f. price of about 45s. per lb.. Brazilian, on the spot, is quoted at 47s. 6d. to 50s. per lb., duty paid. Chinese afloat, is offered at 50s. to 55s. per lb.

NUX VOMICA.—Cochin is quoted on the spot at 45s. per cwt., and for shipment at 39s. per cwt., c.i.f.; Mangalore, spot, 40s.

ORANGE PEEL.—Values unchanged, market dull. Spanish quarters are at 2s. 9d. per lb., and sweet ribbon at 2s. Fine-cut Tripoli would be worth 4s. 9d. to 4s. 10½d. on the spot.

PAPAIN.—East African is quoted on the spot at 23s. per lb.

PEPPER.—Maximum controlled prices are unchanged. Whole, not picked over or cleaned, on sale to processors, is officially priced at 1s. 4d. per lb. for white pepper and 1s. per lb. for black pepper. Picked over and cleaned, 1s. 8d. and 1s. 2d. per lb., respectively. Lampong black, September-October shipment, 2s. 3d. per lb., c.i.f., sellers; white Muntok, September-October shipment, 2s. 5d., c.i.f., sellers.

PIMENTO.—Spot is steady at the rather lower price of 1s. 1½d. per lb. noted last week, with shipment unchanged at 122s. 6d. per cwt., c.i.f., buyers' licence.

QUILLAIA BARK.—Business is small at steady values. Natural bark is at about 125s. per cwt., spot; cut at about 150s., per cwt., ex store.

RHUBARB. — Rough-round may be obtained on the spot at from 11s. to 12s. per lb., according to quality, but higher prices are noted in some quarters. Reports of poor-quality material are still coming in.

SAPONIN.—Chilean is quoted at 9s. per lb., in bond at Liverpool.

SEEDS.—ANISE (*Star*).—Chinese, 190s. per cwt. ex warehouse London. CORIANDER.—Spot, Morocco, 90s. per cwt.; Indian, 92s. 6d. per cwt., ex wharf London. CELERY.—Spot, Indian, 1s. 6d. per lb., ex wharf London or Liverpool. CUMIN.—Spot, Indian, 210s. per cwt.; Morocco, nominal, 215s., duty paid, ex wharf London. DILL.—Spot, Indian, 67s. 6d. ex wharf Liverpool; 70s. quoted, ex wharf London. FENNEL.—Spot, Indian, 160s., ex wharf London or Liverpool. FENUGREEK.—Spot, Indian, 70s., ex wharf London; 67s. 6d., ex wharf Liverpool.

SENEGA.—Business continues in Canadian root with values unchanged at 14s. to 15s. per lb., landed London. It is reported that American material is offering at 11s. 6d. per lb., c.i.f. There is a 10 per cent. duty on this material.

TRAGACANTH.—Business is quiet with prices steady. Selected grades are quoted at £155 per cwt. Prices of medium grades are as follows: No. 1, white, £145 per cwt.; No. 2 white, £125; No. 3 white, £110; No. 4 white, £85; pale leaf, £50; amber leaf, £50; dark amber, £35; brown leaf, £25; red-and-brown leaf, £20; red leaf, from £17; hoggy, £12 to £15.

TURMERIC.—Madras finger, on spot, remains steady and unchanged at about 95s. per cwt., ex wharf London, and 92s. 6d., ex store, Liverpool.

VALERIAN.—Belgian root is quoted at about 245s. per cwt. on spot.

WAXES.—Prices are well maintained; business on a limited scale. CARNAUBA.—Fatty grey, spot, 1,040s. per cwt.; chalky, 1,000s.; prime yellow, 1,200s.; Fatty grey, spot, 1,040s. per cwt.; 1,150s. BEES'.—Quoted on the market as follows: Dar-es-Salaam, spot, 340s., per cwt.; afloat, 337s. 6d., c.i.f.; forward, 337s. 6d.; Benguela, spot in bond, 310s.; shipment, nominal, 295s; OURICURI.—Spot, nominal; shipment, September-October, 6 per cent., 620s., c.i.f. CANDELILLA.—Spot, 490s. per cwt.; to arrive, 490s. landed.

Essential and Expressed Oils

CASTOR.—The controlled prices for the period ending September 28 are as follows: "Firsts," £110 per ton; "seconds," £108, naked, ex works.

CLOVES.—Quotations from English distillers of bud oil are unchanged at 12s. per lb.

COCONUT.—Bulk supplies of crude oil continue at £49 per ton; refined deodorised, steady at £56. Refined hardened deodorised, £60.

COTTONSEED.—Official quotations are as follows: Crude, £52 2s. 6d. per ton; washed, £55 5s.; refined edible, £57; refined deodorised, £58, naked, ex works.

TRADE MARKS

(From "The Trade Marks Journal," August 28)

"TUYA": for perfumes, cosmetic preparations (not being toilet preparations) and toilet soaps (3). By Para Ti Corporation, 730 Fifth Avenue, New York, N.Y., U.S.A. B640,003.

"FEMEX"; for toilet preparations (not medicated), cosmetic preparations, perfumes, soaps, hair lotions, essential oils and dentifrices (3). By Wilfred Stretch & Co., Ltd., Union Works, Castleton, Rochdale, Lancs. 641,134 (Associated).

"LA VISION" and "LA JARDINIERE"; for toilet preparations (not medicated), cosmetic preparations, perfumes and soaps (3). By Winifred May Waller, 28 Kingsfield Road, Oxhey, Watford, Herts. 641,114-15.

"PAVILLON"; for bath salts, talcum powder, face powder and cream, all being non-medicated toilet preparations; dentifrices, lipstick, soaps, perfumes, brilliantine and hair lotions (3). By Coty (England), Ltd., 3 Stratford Place, London, W.1. 640,620.

"L'AMOUR PAR VAN DYK" ("Van Dyk" disclaimed); for perfumery, toilet preparations (not medicated), cosmetic and depilatory preparations, dentifrices, toilet articles (not included in other classes), sachets for use in hair-waving, soaps and essential oils (3). By Godfrey Thornfield, Fortess Grove, 28-34 Fortess Road, London, N.W.5. B640,528.

"KHA-NAH" and "RUCILLE"; for toilet preparations (not medicated), perfumes and perfumed soap (3). By John Halford, 93 Goldsmith Street, Nottingham. 640,405.

"BARBARESQUE"; for perfumes (3). By Nina Ricci, 20 Rue des Capucines, Paris, France. B640,325.

"STETT"; for hair-setting cream (3). By Henry Field, Station Road, Tidworth, Hampshire. 639,642

"BEAU JOUR" for preparations for the nails and hand cream, all non-medicated toilet preparations (3). By Eugene, Ltd., 100 Imlay Street, Brooklyn, New York. 639,312.

"SOLO'S SKOLOS"; for bleaching preparations and other substances for laundry use; cleaning, polishing, scouring and abrasive preparations (3). By Solo Laboratories, Ltd., 103 Walmer Road, London, W.10. 638,767 (Associated).

"HIS EXCELLENCY": for soaps, perfumery, toilet preparations (not medicated), cosmetic preparations, hair lotions, dentifrices, essential oils (3). By G.H.F. Manufacturing Co., Ltd., 65 South Molton Street, London, W.1. 638,454.

"TRIBUTE"; for soap, perfumery, essential oils, toilet preparations (not medicated), cosmetic preparations and dentifrices (3). By John Hedworth Jolliffe, 12 Lancaster Place, Blackburn, Lancashire. 635,046 (Associated).

"SEBACOL"; for depilatories (3). By Société Rapidase, 64 Rue d'Arras, Seclin, France. 612,060.

APPLICATIONS AMENDED AFTER ADVERTISEMENT. Specification 629 498 by Hans Emanuel Neumann Enoch should be altered so as to read "Products of mould metabolism prepared for pharmaceutical purposes."

(From "The Trade Marks Journal," September 4, 1946)

"SKITTO'S" and "RIBBY"; for drugs being chemical substances used in industry; chemical products used in science, photography, agriculture and forestry (other than fungicides, insecticides and preparations for killing weeds) (1). By Commanditaire Vennootschap Chemische Fabriek Rids, Middenhavenstraat 36, Ijmuiden, Netherlands. B640,059-62 (Associated).

"SKITTO'S" and "RIBBY"; for toilet preparations (not medicated) for cleaning the mouth and teeth; scouring, polishing, burnishing and cleaning preparations; wax preparations for cleaning, polishing, laundry and toilet purposes (3). By Commanditaire Vennootschap Chemische Fabriek Rids, Middenhavenstraat 36, Ijmuiden, Netherlands. B640,060-63 (Associated).

Device of sheep's head; for fertilisers, manures, peat moss for agricultural purposes, potash powder, bone meal and lawn sand (1). By Beetall Fertilizers, Ltd., Lion Mill, Wincolmlee, Hull. 641,349.

"HARSIENS"; for toilet preparations for the hair (3). By Hairscience Development Co., 344a St. Albans Road. Watford, Herts. 639,757.

"IDYLLE"; for bath salts, talcum powder, face powder and face cream, all being non-medicated toilet preparations; dentifrices, lipstick, perfumes, brilliantine and hair lotions (3). By Coty (England), Ltd., 3 Stratford Place, London, W.1. 640,615.

"GIRALDI"; for toilet preparations (not medicated), cosmetic preparations, soaps and perfumes (3). By Winifred May Waller, 28 Kingsfield Road, Oxhey, Watford, Herts. B641,190.

"FROMCOL": for all goods (3). By Fromm & Co., Ltd., 29 Oxford Street, London, W.1. 641,613.

"SCHENLEY"; for penicillin for pharmaceutical use (5). By Schenley Laboratories, Inc., Foot of Mary Street, Greendale P.O., Lawrenceburg, Indiana, U.S.A. B636,771.

"FLYMORT"; for insecticides (5). By The Farinol Co., Ltd., Westinghouse Road, Trafford Park, Manchester. B639,640 (Associated).

"RIBBY"; for all goods (5). By Commanditaire Vennootschap Chemische Fabriek Rids, Middenhavenstraat 36, Ijmuiden, Netherlands. B640,064 (Associated).

"VOLA-DENT"; for medicated preparations for cleaning artificial dentures (5). By Cal-Ma-Vite Laboratories, Ltd., Clarendon Works, Clarendon Road, Croydon, Surrey. 640,591.

"VAM"; for anæsthetics (5). By May & Baker, Ltd., Dagenham, Essex. 640,790.

"SANKOTAN" (letters S and N disclaimed); for pharmaceutical preparations for human use (5). By King & Hudson, Ltd., 2 Stoney Road, Coventry. 641,040 (Associated).

"SABADOL"; for chemical substances prepared for use in medicine and pharmacy (5). By Albert James Wuertzfield, Mount Pleasant, Wembley, Middlesex. 641,237.

"SCIATONE"; for pharmaceutical preparations for the treatment of sciatica and rheumatism (5). By Anglo Saxon Pharmaceutical Products, Ltd., 10 New Square, Lincoln's Inn, London, W.C.2. 641,532.

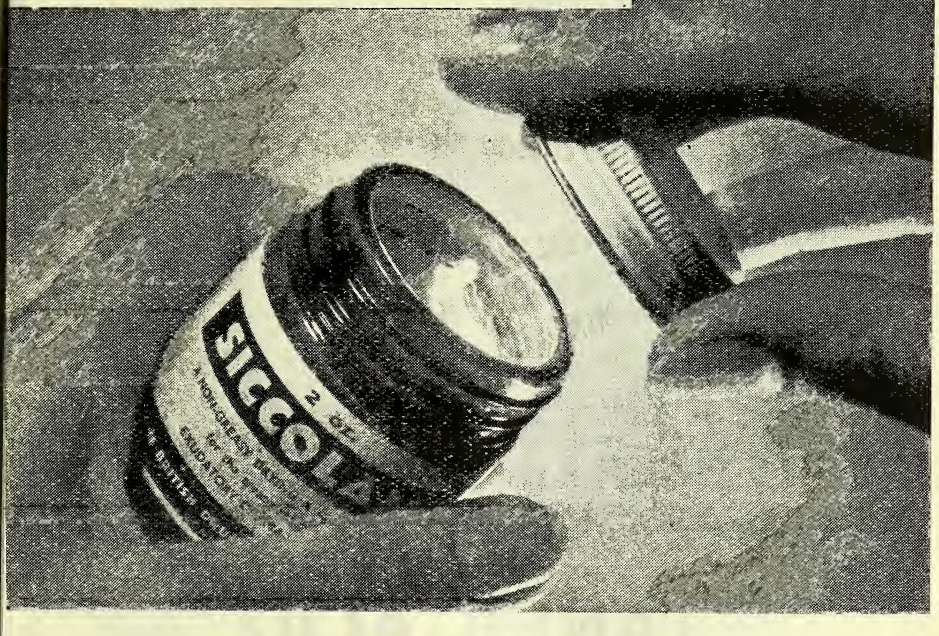
"MELKALIN"; for disinfectants and antiseptics (5). By Bayer Products, Ltd., 14 Waterloo Place, Pall Mall, London, S.W.1. 641,578 (Associated).

"HEDOKROL"; for insecticides, fungicides and preparations for killing weeds and destroying vermin (5). By Bayer Products, Ltd., 14 Waterloo Place, Pall Mall, London, S.W.1. 641,770.

"ASIRLIN"; for liniment for the relief of pain in inflamatory conditions (5). By C. J. Plucknett & Co., Ltd., 38 Poland Street, London, W.1. 641,803.

"STEINER" (in distinctive writing, word Steiner disclaimed except in the written form shown in the representation on the form of application); for hair dressing machines (7); hair dressing appliances (not machines) (8); hair drying appliances (11). By Steiner, 66 Grosvenor Street, Bond Street, London, W.1. 641,525-27 (Associated).

SICCOLAM B.D.H.



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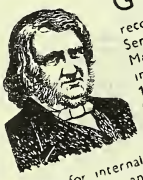

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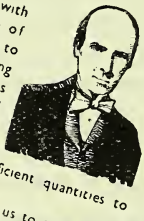

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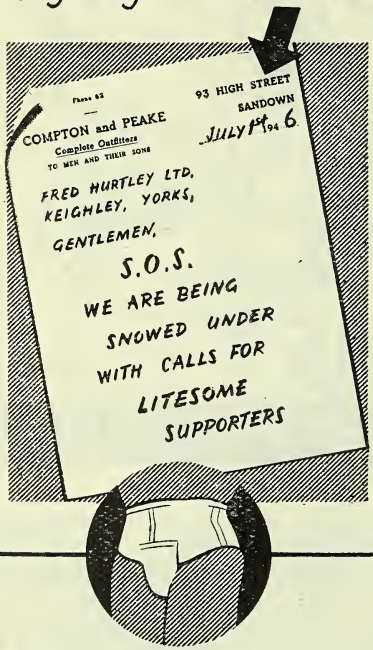
The Call for

LITESOME

is going **UP..UP..UP..**



This is just one of many 'life saver' requests we're receiving continually! It's not surprising that the "Litesome" Supporter sells so well, scientifically designed to give men of all ages that support which spells vitality, vigour and lasting fitness. National advertising of this essential male underwear has created a profitable, ready-made market for YOU. Are you stocked to meet it? Showcards, window transfers and all details of terms are now available—may we send them to you?

Amongst men who feel really fit . . . .

THERE YOU'LL FIND
LITESOME
Supporter

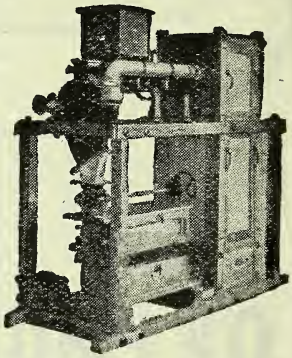
STANDARD MODEL 6/10
MAYFAIR MODEL 15/2

Sole Manufacturers

FRED HURTLEY LTD. KEIGHLEY, YORKS.

purely material

Not only will this machine reduce raw materials to a fine powder, but it sifts to a uniform grade and ensures absolute purity by rejecting any foreign matter. On the purely material side, it is economical to operate and runs trouble-free practically for ever.



Combined
FEEDING
GRINDING
SIFTING
and **DUST**
COLLECTING
PLANT

Wm. GARDNER & SONS (GLOUCESTER) **LTD.**
BRISTOL ROAD, GLOUCESTER

Telephone 2288 (3 lines)
Telegrams: "Gardner, Gloucester."

F. SCHUTZE & Co., LTD.
ESTABLISHED 1882

For "MASTER" BRAND SURGICAL TRUSSES
SUSPENSORY BANDAGES
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PERFUMERY BOTTLE WICKERERS in RAFFIA or SILK, plain or fancy, wide range of designs.
Own bottles wickered at moderate cost

Black Bull Works, Market Road, London, N.7

Three profitable lines . . .

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ACTS LIKE MAGIC
BRAND

FOR COUGHS AND COLDS
P.A.T.A. **FENOLIN FLUID** P.A.T.A.
and
ELDON VAPORISERS
FOR WHOOPING COUGH

HALL FORSTER & Co. LTD
NEWCASTLE-ON-TYNE

now—

150 more *sheets to the roll*

. . . and improved quality of tissue

The same price: but it now buys improved quality—the finest obtainable today—and not only that, but a third more paper. This is only the first of Swan Mill's promised improvements in supplies and service to their customers.

SOFT . . . SOFTER . . .

SOFTEX

TOILET TISSUE

Price remains at 1/3 per roll

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Telephone: REGent 0422/3 SMT. 7

HERE'S A **CORN**

REMEDY YOU CAN'T BEAT

Hobson's Choice removes Corns in 3 to 7 days, it is safe, sure and painless. Backed up by widespread advertising it has become the leading CORN CURE on the market to-day.

Retail Prices:

Plaisters - - 2d.

Powders - - 1½d.

Combination Pack - 7d.

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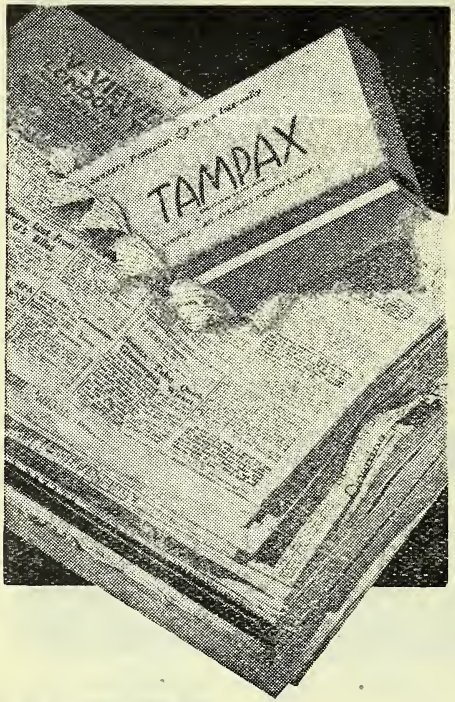
UNION HOUSE, LEEDS, 2

Sole distributors for Scotland:

SOUTHERN MANUFACTURING CO., LTD.,

187, St. Vincent Street, Glasgow, C.2.



Constantly in the news!

News of the great benefits and advantages of Tampax—the perfected form of internal sanitary protection—is not only constantly in woman's eye through the papers and magazines that she reads, but personal recommendation from one woman to another ensures a rising demand which you will do well to meet with ample stocks. Tampax window and counter displays are ready to advertise those stocks for you at the point of sale.

Packets of 10: TRADE 15/9 doz. RETAIL 1/9 Packet.
Distributed through leading wholesalers

TAMPAX LIMITED
Sales Office: **110 Jermyn Street, London, S.W.1**
Telephone: Whitehall 8696/7

For Your Information

Representatives to call more often

Now that all our representatives are back from the Forces, we are able to arrange for calls to be more frequent than of recent years. You will receive a call approximately every four months, on the basis of the quotas allocated under our Retail Distribution Scheme.

Our standing with the public

Throughout the War years and the present difficult period, the high quality of our products has been fully maintained. For example, with regard to Optrex we have kept resolutely to our belief that "only the best is good enough for the eyes" even though this has meant, of course, severely limiting supplies. Our standing with the public remains, therefore, as high as ever.

Prescription Scheme withdrawn

The special Prescription Scheme we introduced early in the War to ensure that our products would, so far as possible, always be available in the most urgent cases, has now been withdrawn—although naturally our products will still be available against medical scripts. We should like to take this opportunity of thanking you for co-operating with us in running the Scheme and so helping those members of the public whose needs were greatest.

Advance Information

Optrex Eye Compresses will shortly be available. Full particulars from our representative when he calls.

OPTREX Ltd.

PERIVALE : MIDDLESEX

PILLS
CAPSULES
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Specialisation
For over 50 years

SEMPER EADEM
TRADE MARK

It will pay you in price and in quality to consult us about your requirements. The experience of over 50 years spent in specialist manufacturing enables us to render a service second to none whether to your private formulae or to ones supplied by us, whether delivered ready packed or in bulk, whether for Home or Overseas clients.

HOWARD LLOYD & Co. LTD.

Wholesale Manufacturing Chemists

Home and Export

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A MESSAGE TO COSMETIC BUYERS

Trypt

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NOW PRESENTED IN 1946
STREAMLINE PLASTIC
PROPELLING CASE OF
DIGNITY AND CHARM

★ SIX FASCINATING SHADES
★ INDELIBLE - STAYS FRESH ALL DAY
★ VELVETY-SMOOTH TEXTURE
★ NEW LIP-SHAPED PATENTED DESIGN FOR EASY AND ACCURATE APPLICATION

6/6 2/8 REFILLS

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INDELIBLE · LIP-SHAPED · VELVETY SMOOTH

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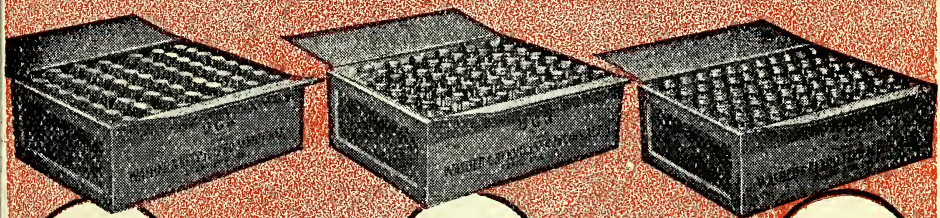
Telegrams TRYSTREGE, Piccy, London Cablegrams TRYSTREGE, London Telephone, REGent 3283/4/5/6/7.

GREATER THAN EVER IS THE DEMAND FOR

U.G.B

MEDICAL BOTTLES



CORK MOUTH

WHITE ENAMELLED METAL SCREW-CAP

KORKALITE MOULDED CAP

WASHED AND STERILISED
—READY FOR USE—
THE IDEAL
DISPENSING BOTTLE
IN ANY EMERGENCY

UNITED GLASS BOTTLE
MANUFACTURERS LTD.
The Largest Manufacturers of Glass Bottles in Europe
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PACKAGING

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MONO *means* BUSINESS!

PLAN YOUR POST-WAR CONTAINER *NOW*

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'GOOD MORNINGS' BEGIN WITH GILLETTE . . .

back in the window

Put Gillette in the window, a cheering display,

Tell people you've got them — you'll find it will pay.

(The supply position is improving)

Enemas

Demand continues for the

"PERFEX"

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"SATINETTA"

Recommended by Doctors and Nurses

P.A.T.A.

British Made

Other "Ingram" specialities

AIR CUSHIONS

The "ATALANTA" is strongly built to stand up to years of hard wear. Specially made seams—no leakage possible.

BREAST RELIEVERS

Ingram's "OMEGA" remains consistently popular. A sturdy job, designed in collaboration with Medical authorities.

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The London India Rubber Works, HACKNEY WICK, E.9.

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Wholesale Only

Enquiries are invited for any of the following manufactures—

Cotton Wools
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W.O.W. Bandages
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AWARDED THE CERTIFICATE OF THE INSTITUTE OF HYGIENE IN RESPECT OF "STERAID" SURGICAL DRESSINGS

ROBERT BAILEY & SON, LTD.

SURGICAL DRESSING MANUFACTURERS

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Phone: GREAT MOOR 3006 *Grams:* "UNDISPUTED," STOCKPORT

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"MATER"

CLINICAL REGD.

The position of the Mercury column is at once perfectly plain. Red markings above 99.4.

ALL TYPES OF CLINICAL AND OTHER THERMOMETERS

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"PORTEX"
MEDICATED
PLASTIC SKIN

Immediate Relief for
MOSQUITO BITES
and for
CHILBLAINS, SORE AND BLISTERED FEET, ABRASIONS, BURNS, CUTS, CHIROPODY, FISSURES, FISTULÆ, IMPETIGO, BITES, INFANT PERINEAL DRESSINGS, CRACKED NIPPLES DURING LACTATION.

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The SWEET SMELLING MOTH PREVENTER..

Every woman who enters your shop is a likely customer for Petal Dust—the sweet-scented **MOTH-PREVENTER.** Keeps moths out of wardrobes, drawers and cupboards; safeguards linen, furs, woollens and garments from damage. Impregnates with a delightful flowery perfume which is purifying and antiseptic. In handy sachets retailing at 10d. (including Pur. Tax). Trade terms on application.

IT'S A MARSHALL'S LINE!

PETAL DUST

Perfumed Moth Preventer

MARSHALL'S • TOWER BRIDGE • S.E.1

English Filter

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SQUARES
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WHITE
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SAMPLES FREE

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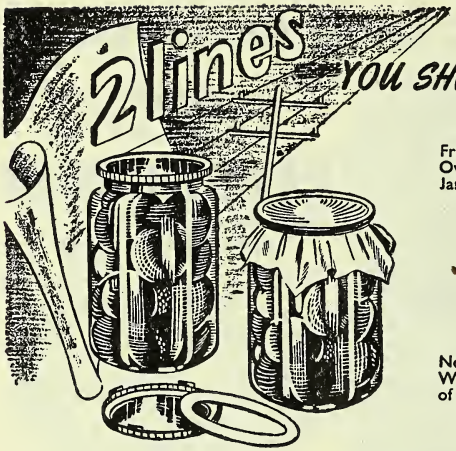

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'POROSAN'
Fruit Caps and Skin Rings (Recommended for the Oven and Water Methods) for sealing 1 lb. & 2 lb. Jam Jars.

In 3 Packs.
One Pound (12 Caps and Rings)
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"Fifty-Fifty" (6 each size)
3/4d.
per doz. Incl. Tax.
Spare Rings **10d.** per doz. Tax Free.

'POROSAN'
(Original)
No. 1 Fruit Preserving Skin (Recommended for Water Method). Can be cut to fit any size or shape of jar or bottle and can be used over and over again.
In rolls **1/6** (six 2 lb. jars)
In rolls **4/-** (eighteen 2 lb. jars)
Tax Free.

DON'T FORGET TO ORDER REPLACEMENT RINGS AS WELL

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IN INCREASING DEMAND ALL OVER THE LAND

A SAFE GUARANTEE OF QUALITY.

IT HAS NO EQUAL

for cleaning, polishing & preserving

WOOD FLOORS, LINOLEUM & FURNITURE

When some time ago the work of cleaning and renovating the wonderful old oak panelling in one of the Oxford Colleges was put in hand, the contractors applied to the **Department of Scientific and Industrial Research** (H.M. Forest Products Research Laboratory) for advice as to the best material to use for such an important task. In response, the Department instructed them to use

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NON-POISONOUS

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RECOMMENDED AND PRESCRIBED BY DOCTORS

AERO-PED

A SPECIFIC FOR INFECTIONS OF THE FEET

Price 2/3

AERO-PED is not just another "Foot Preparation." It has rapidly established itself as a product of real therapeutic value in the effective treatment of TINEA PEDIS (Athlete's Foot) and other mycotic infections.

REGULARLY ADVERTISED in Medical Journals—National papers including The Times, Daily Telegraph, Daily Mail, Daily Mirror, News of the World, Reynolds News, Sunday Pictorial, Picture Post, The Leader, etc., etc., and provincial and specialised press.

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D6/17

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REFINED GLYCERYL MONOSTEARATE EMULSIFIERS

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Please address inquiries to

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BE ADVISED.

If you have not already good stocks of Emulsifying Waxes . . .
V.L. V.X. 0584.
you should obtain supplies now whilst we can still supply, as the position is becoming difficult.

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LENNARD LEE - NARVILL & CO., LTD.
Lee-Narvill Laboratories, Anlaby Rd., HULL

SOAPLESS SHAMPOO IN BULK.

Price
45/- plus 1/3 P.T.
per 5 gallon drum.

Samples on request.

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Universal Frame View Finder (Contax) for 3.5, 5, 8.5, 13.5 cm. focal length; (Leica) for 3.5, 5, 9, 13.5 cm. focal length	£8	8	0
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Exhibition Brilliance Finishing Fluid (1 fl. oz.)		3	9
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High Efficiency Cleaning Fluid, removes finger marks, dirt, dust from films and plates, used before enlarging—saves spotting		3	0
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Ask for detailed price list, illustrations and wholesale discount. 6 assorted sample ampoules, ½ fl. oz. each against remittance of 9/6d.

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"Leda" BRAND OF

D·D·T LIQUID SPRAY

Specially prepared for Household use. NON-INFLAMMABLE, NON-POISONOUS, NON-STAINING.

Ready for immediate use. Full directions on each container. Also in Powder Form.

Samples and prices available to Wholesalers from Manufacturers.

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'SEPTISOL' NURSERY OINTMENT

— FOR DIAPER RASH —

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— FOR BETTER BABY BATHING —

Give Profit and Prestige, and ensure Repeat Demands

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KOKO FOR THE HAIR

50 years reputation as
HAIR TONIC and DRESSING
PROMOTES GROWTH
STOPS FALLING HAIR
CLEARS DANDRUFF
Delightfully perfumed
Thousands of testimonials

In limited supply from Wholesalers.
KOKO MARICOPAS CO. LTD., 3, Fleet Lane, E.C.4

The one and the many

Goya is devoting his autumn advertising campaign, both press and poster, to his face powders alone. Millions of women will be reminded of the six fascinating shades—and of the one perfect fragrance which underlines them all.

Goya uses the same perfume for all his powders in order that retailers may supply every demand with the minimum of stock on their shelves—there are no complicated permutations of colour/perfume combinations.

The perfume in Goya's powder is a special blend of Rose and Jasmin which will harmonise with any Goya perfume—or with any other first class scent.

Shade names are—
NATURE, RACHEL, PEACH, NECTARINE, BASQUE and SUN-TAN.

The retail selling price, including purchase tax, of the standard box is 10/9. The small travel size is 2/6.

PERFUME · LIPSTICK · FACE POWDER

Goya

161 · NEW BOND ST · LONDON · W · 1

an 'ASPRO' DISPLAY
BRINGS IN THE PASSER-BY!

A new 'ASPRO' public has been growing up in recent years—people who, by practical experience, have come to value the ready help of 'ASPRO' in emergencies. All this growing interest benefits the shop which features A PROMINENT 'ASPRO' WINDOW DISPLAY. People who would otherwise be just "passers-by" become faithful and permanent customers, and their custom is reflected in the general volume of your business.

We look forward to the time when we can send you an entirely new display. In the meantime, if your present 'ASPRO' show is overdue for the salvage bin our stocks are still sufficient to supply you with another of the pre-restriction type illustrated below. Please write us if you need a display or seasonable stickers.

Here is 'ASPRO' the Current DISPLAY

MADE IN ENGLAND BY P.A.T.A. ASPRO LIMITED Slough, Bucks.

Shakespeare — and your Products

"Constant as the northern star, of whose true-fixed and resting quality there is no fellow in the firmament . . . ."

Julius Caesar, Act 3, Sc. 1.

With these famous words William Shakespeare praised the virtue of good quality. Percenta Ltd., in the world of modern commerce, pay no less attention, also, to the maintenance of high standards. Our containers are known for their quality of construction and design—and for the added appearance they give our clients' products.

FLASH! Attractive Plastic Lipstick Holders 11 m/m size, push-up type, now available for Home Trade and Export in large quantities. 1,000 gross orders 54/- per gross. Smaller quantities prices on application.

PERCENTA LTD.
(Dept. 23)
69-73, Borough High St., London, S.E.1
Tel.: HOP 1808 & 3751

707,909 NEW Customers for YOU

707,909 babies were born in Great Britain last year. This year the number will be greater. Mothers want the best remedy for baby's skin troubles—teething rash, chafiing and chapping. D.D.D. Balm does not sting or burn baby skin; it soothes immediately and heals quickly. It is non-greasy and does not stain. Thousands of mothers know this from experience; thousands of others learn it from our advertisements in the national and provincial press—and in the women's journals.

Profit from the demand that these births inevitably create. Your wholesaler has adequate supplies of D.D.D. Balm. Trade terms 16/- doz. Purchase tax 2/8 doz. Inclusive retail, 2/- per jar.

Prepared by D.D.D. Co. Ltd., 3, Fleet Lane, London, E.C.4.

D.D.D. BALM

BIOSAN
SHAMPOOSHEEN

The modern luxurious lathering Shampoo Cream.

Shampoos SHEEN into hair

For all shades of hair, and all members of the family.

Packed in Tubes. Retailing 7½d. Display Outers of 3 doz. 13/6 Plus 4/6 P. Tax.

Also Bulk Supplies for Saloons.

AGENCY ENQUIRIES INVITED FOR HOME & EXPORT.

LOVELUCK'S
LANOLINE BALM

An all-the-year-round seller for Medicinal, Toilet and Infant use.

PROFESSIONALLY ELEGANT.
COMMERCIALLY ATTRACTIVE.

Retail 1/6. Display Outers 35/- inc. Tax.

Illustrated Price list of Toilets, Specialities & Packings available from

Sole Distributors:

LOVELUCK EDWARDS & CO.
432/438 GARRATT LANE, S.W.18

Getting easier but still in short supply

Although we still cannot catch up with the constantly growing demand for Juno-Junipah, we are glad to say that supplies are a little easier than they were. Our plans for greatly increased production are beginning to come to fruition.

T. MARNS, LTD., 2 CAXTON STREET, LONDON, S.W.1.

JUNO-JUNIPAH

The Woman's Own Health Salts

BESORBON SELLS ON SIGHT!

Besorbon medicinal snuff is in demand all the year round as a preventive remedy for Hay Fever, Colds and Catarrh. Put this attractive display box on your counter and it will make its own sales. Supplied with all orders for dozen lots—from all registered wholesale chemists.

KEMSALES LTD.

20 EASTCHEAP, LONDON EC.

In the Blue and White Tin, 2/-.

Herts Pharmaceutical, Ltd, Welwyn Garden City.

Fashion footwear - forward footcare!

High heels are coming back and sandal type shoes are coming back. This means increased sales for every agent who stocks Scholl Foot Aids. Women and girls who never bothered about their feet—however much they hurt—are going to feel the need of looking after them now. High heels will search out corns and callouses. Fashionable sandals demand toes and heels free from unsightly blemishes.

Link up with the Scholl Organisation and be ready to supply women with all the foot relief they will demand. Scholl's famous remedies are known and trusted by everybody. The more you display them the better they sell. Write for our price list.

We can thoroughly recommend the following products:—Zino Pads, Tarso Pads, Felt Pads for corns, callouses, bunions. 2-Drop Corn Remedy, Bunion Lotion. All give prompt relief.

SCHOLL MANUFACTURING CO. LTD.

SCHOLL

182-204 St. JOHN STREET, LONDON, E.C.1

55/31

The CHEMIST AND DRUGGIST SUPPLEMENT

This Supplement is inserted in every copy of The Chemist & Druggist

28 ESSEX STREET, LONDON, W.C.2

SEPTEMBER 14 1946

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7/6 for 40 words or less, 2d. for every additional word.

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BRISTOL. Qualified Manager for Branch business. Sound credentials, good hours, and salary according to experience and ability. Apply to: Secretary, E.N.T. Co., Ltd., 431 Gloucester Road, Horfield, Bristol, 7.

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DISPENSER, experienced, qualified or unqualified, required for private retail pharmacy; permanency. Send full details in first letter to A. M. Carr, M.P.S., 142 Oldbury Rd., West Smethwick, Staffs.

DISPENSER required for new department to be opened by a Midland Departmental Store. Write, giving full particulars of qualifications and experience, 117/718, C. & D. Office.

ELDERLY Qualified Assistant wanted for a good class business. State experience and salary required, etc. Photo if possible. Williams & Smith, Chemists, Horsham, Sussex.

FAMOUS Store, opening shortly a fine new drug, surgical and dispensing department, requires services of fully qualified pharmacist and unqualified assistant. Good wages, regular working hours and many other added advantages. Apply 119/788, C. & D. Office.

L. ROWLAND & CO., LTD., of Wrexham, require a Qualified Manager for an old established branch in a pleasant country district. The position offers a permanency to the right man, and good living accommodation is provided. Applications are invited from gentlemen able to provide first class references who have pharmaceutical and business abilities above the average. Replies stating remuneration required, please, Mitre Buildings, Brook Street, Wrexham.

M.P.S. and two Chemists' Assistants required for new department to be opened in large departmental store in the Midlands. Write, giving full particulars of qualifications and experience, 117/717, C. & D. Office.

ORRIDGE & COMPANY Employment Agency, Columbia House, Aldwych, W.C.2. Chancery 6446-7. Branches at Southampton and Birmingham. Enquiries invited from all employers seeking staff. Many pharmacists and unqualified assistants available for retail and wholesale. Representatives also requiring situations. Reasonable terms. Write to Columbia House for particulars.

PHARMACIST Manager, South-West London Branch. Working class area. Living accommodation available. Permanency. Apply 121/824, C. & D. Office.

PLYMOUTH Co-operative Society Limited invite applications from qualified persons for the position of superintendent chemist, becoming vacant due to retirement. 5 branch pharmacies, present total annual trade, £49,000; 3 branch pharmacies, present total annual trade (including tobacco sales), £56,000. Superannuation scheme in operation. Applications, stating age, qualifications, details of experience, present position and salary required, to General Secretary, Plymouth Co-operative Society, Limited, 49-50 Thorn Park, Plymouth, endorsed "Superintendent Chemist", to be received not later than October 5th.

QUALIFIED Assistant, immediately; good position and prospects for recently demobbed or otherwise. Full particulars first letter. Box 121/843, C. & D. Office.

QUALIFIED Assistant required for East Coast resort. Salary up to £8 8s. p.w. according to experience. (Also unqualified required). References, age, and state when can be interviewed to 119/762, C. & D. Office.

QUALIFIED Chemist required as Superintendent Pharmacist, good salary, living accommodation, permanency. Particulars to T. G. Jeary, High Street, Calne, Wilts.

QUALIFIED, for busy shop near the City of London. Good wages and hours. Write with full particulars to 119/781, C. & D. Office.

QUALIFIED man required. Good opportunity for person of initiative; permanency; Ilford district. Write stating experience and salary required or 'phone ILF 1756 for interview. 120/795, C. & D. Office.

QUALIFIED Manager required for branch business. Send usual particulars to Leach & Son (Macclesfield), Ltd., Chemists, 34 Market Place, Macclesfield.

STREATHAM, S.W.16. Young qualified assistant for good-class dispensing business. Permanency. No Sunday duty. Full details to Box 121/851, C. & D. Office.

STOCKPORT. Qualified Assistant Pharmacist required, lady or gentleman. Apply stating age, wage, and giving references to: The Secretary, Stockport I. & E. Co-operative Society, Ltd., 27/39 Chestergate, Stockport.

SWANSEA. Pharmacist required immediately as manager. Light family and dispensing business. Good prospects. No Sunday or holiday duties. Box 121/850. C. & D. Office.

UNQUALIFIED Assistant required for dispensing. No half-day or Sunday duties. Permanency. Apply Trevethick, Medical Hall, Bull Ring, Kidderminster.

WEST HARTLEPOOL. Vacancies occur for two pharmacists (male or female) capable of taking charge of a branch—one vacancy would suit newly qualified person. Exceptional opportunity for experience in busy good class store pharmacy. Give usual particulars and salary required to: Hartlepools Co-operative Chemists, Ltd., West Hartlepool.

LOCUMS WANTED

LOCUM Pharmacist required for two weeks. Salary: 8 gns. per week. Reply giving particulars of experience and dates available to the Secretary, Portsmouth and Southern Counties Eye and Ear Hospital, Grove Road North, Southsea.

WHOLESALE

A UNIQUE Opportunity. Under Manager required for tablet manufacturers in West Riding of Yorkshire, with house provided. Applicants must have a complete knowledge of tablet manufacturing, and able to control staff. Apply in writing, giving details of age and experience, 119/771, C. & D. Office.

AGENT, commission basis, for Lincoln and adjacent Counties, Warwicks, Leicester, Derby, S. Wales, S.W. Coast. "Red Band" Chemical Co., Ltd., 16 Young Street, Edinburgh.

ANALYTICAL Chemist required by well-known London manufacturers. Must be conscientious worker and hold either pharmaceutical qualification or B.Sc. Practical experience of general routine analysis is essential. Apply in writing giving full details of age, experience and salary required in first instance to 120/805, C. & D. Office.

APPLICATIONS are invited from youths for work in the process laboratories of a fine chemical factory in the Surrey district. The work provides an excellent training in organic synthesis and every encouragement is given to the selected candidates to pursue their studies. Apply 120/820, C. & D. Office.

ASSISTANT Tabletter wanted by manufacturing chemists in West London. Good wages; five-day week. Accommodation for single man provided near factory if needed. Write stating experience and wages required, to Box 272, Smiths', 100 Fleet Street, E.C.4.

BIOSAN Products require representatives calling on chemists, hairdressers, and stores to carry Shampoo Sheen cream as additional commission line. Other lines if desired. Details of territory and frequency of calls to Biosan Products, 432 Garratt Lane, S.W.18.

CHEMIST for D.D.A.—Poison Room, in South-East London. Wholesale druggists. Full particulars to 120/815, C. & D. Office.

CHEMIST Perfumer. Vacancy occurs in the laboratory of a leading London house with world wide connections. Progressive post with excellent prospects for an individual possessing up to date knowledge of modern cosmetics, and a flair for matching synthetic perfumery compounds, soap perfumes, etc. Replies in strict confidence, giving full details of previous experience to Polak & Schwarz (England), Ltd., 50 Great Cambridge Road, Enfield, Middx.

COSTING and Record Clerk with experience in chemical trade required by manufacturing chemists in West London. Write Box 274, Smiths', 100 Fleet Street, E.C.4.

ESTABLISHED Firm of manufacturing chemists have two vacancies for London and suburbs (North and South). Good income assured to those with live connections chemists and allied trades. Box 121/844, C. & D. Office.

EUGENE LIMITED have some interesting openings for Sales Representatives. Applicants should: (a) Have called on hairdressers as sales representative; (b) be prepared to reside in Northumberland, Yorkshire or Nottinghamshire; (c) be able to drive a car. Full details should be forwarded, in confidence, to Eugene Limited, Edgware Road, Hendon, N.W.9.

EVANS Medical Supplies, Ltd., have a vacancy for a chemist with experience in modern design and packaging. Applications, giving full particulars, should be made in writing to: The Sales Director, Evans Medical Supplies, Ltd., Speke, Liverpool, 19.

EXPERIENCED Representative with live connections among chemists and dept. stores. One for Yorkshire, another for South West England, wanted by reputable cosmetic company. Car an advantage. Salary and commission approx. £1,000 per annum. Full particulars in reply. 120/814, C. & D. Office.

FIRST-CLASS Representatives with good connections required for following areas: 1, London; 2, Kent, Surrey, Sussex; 3, South Western Counties; 4, North Eastern Counties; by manufacturers with exclusive range of plastic and nylon hair brushes. Apply 120/818, C. & D. Office.

EXPORT. Experienced Allied national prepared to take over and/or develop department for manufacturers having suitable lines. Box 121/838, C. & D. Office.

FIRST-CLASS Salesman required. Cosmetics and toilet preparations. Contemplated commission and expenses about £1,200-£1,500 p.a. Good references and experience essential. Directorship (with capital) may be considered later. 120/816, C. & D. Office.

FOREWOMAN for small department packing medicinal preparations. State age, experience and wages required. 119/756, C. & D. Office.

KEEN and ambitious qualified representatives required by leading ethical pharmaceutical house to call on hospitals, doctors and retail chemists. Salary, expenses and commission, superannuation scheme. Write, giving full particulars with photograph if possible, to Box 1307, c/o Charles Barker & Sons, Ltd., 31 Budge Row, London, E.C.4.

LONDON manufacturing chemists require assistant to manager, with administrative experience and knowledge of trade. Responsible and progressive position. Write stating experience and salary required to Box 270, Smiths', 100 Fleet Street, E.C.4.

LONDON (North of Thames) and Middlesex. Sole agency offered by manufacturers of exceptionally attractive proprietaries in wide demand. Applications will only be considered from men well known to retail and wholesale chemists, stores and co-ops., and operating the territory regularly and systematically. Adequate proof of ability must be available at subsequent interview of selected applicants. Please give particulars of age, experience, present line or lines carried, and if car owner. Incomplete applications will not be considered. Box 121/846. C. & D. Office.

MALE or female Cost and Invoice Clerk required. Must be fully conversant with Surgical Sundries. Write stating experience and salary required to the Medical Supply Association, Ltd., 167 Grays Inn Road, W.C.1.

MANAGERESS for labelling and finishing department required by a well known old established company manufacturing perfumery, toilet preparations and soaps of international repute. Modern factory, south of London, good conditions. Previous similar experience desirable though not essential, providing applicants have practical knowledge of factory conditions and control of labour. Particulars of previous employment, age and salary, stating when free, to Box B 278, c/o Street's, 110 Old Broad Street, E.C.2.

MANAGERESS. Pharmacist or with pharmaceutical background required by old established firm of manufacturing chemists on south coast to take charge of department employing women and girls in filling, labelling and packing tablets, pills, proprietary medicines, etc. Modern factory, good conditions. Previous similar experience desirable, though not essential. Particulars of previous employment, age and salary, stating when free, to Box B 279, c/o Street's, 110 Old Broad Street,

MANUFACTURERS of ethical products with world wide reputation, require four keen pharmacists, not over 35, to train, and later to act, as representatives calling on doctors, hospitals and pharmacists. Territories: London; N.E. England; N. Wales and E. Midlands. Good salary, expenses and prospects. New cars provided (on order now). Applications with fullest particulars and photo to: 120/809, C. & D. Office.

MEDICAL Representative with pharmaceutical qualification required for London area by manufacturers of well known ethical products. Reply in confidence, giving details of age, previous experience, etc., to 120/811, C. & D. Office.

PHARMACEUTICAL Chemist wanted with good experience in research and marketing of proprietary and ethical preparations. Factories in London and Yorkshire and the applicant will have to maintain connection between both places. Excellent opportunity for the right man. Please state age, experience, salary expected, etc., in full confidence, 120/819, C. & D. Office.

PHARMACEUTICAL manufacturers have a vacancy for salaried representative to take over London postal area north of the Thames. Details of experience, commission, salary required, to Box 74, 24 Tudor Street, E.C.4.

PHARMACIST for small manufacturing pharmaceutical laboratory. Birmingham district. Living accommodation available for married man if required. State age, etc., to 119/761, C. & D. Office.

REPRESENTATIVES calling on retail chemists and department stores wanted by London wholesale chemists' sundries house. Commission only. All areas, except South Coast. Please state present lines carried. Write 121/826, C. & D. Office.

REPRESENTATIVES required by leading ethical pharmaceutical house to call on doctors, hospitals, chemists, etc. Essential qualification—pharmaceutical training. Territories vacant; East Midlands, Yorkshire and Glasgow area. Write 120/790, C. & D. Office.

REPRESENTATIVE required by firm of manufacturing chemists to call upon doctors, hospitals and chemists in connection with first-class ethical pharmaceutical products in Nottinghamshire and Leicestershire. Applicants must reside in the area. Box 121/842, C. & D. Office.

REPRESENTATIVE required for medical and dental propaganda work in Lincs., Notts., Derby and Cheshire, by well-known firm of manufacturing chemists. A knowledge of medicine and/or dentistry essential. Applicants must have energy and initiative, be willing to reside on territory and able to produce highest references. Good salary and expenses. Write giving fullest particulars in confidence to 120/808, C. & D. Office.

REPRESENTATIVE wanted for Sussex, Hampshire, Dorset and Wilts to sell well advertised proprietaries known throughout the trade for their excellence. Must be well experienced on calling on qualified chemists in these areas. Commission, wages, expenses. Write, Box C.1250, Armstrong-Warden, Ltd., 69 New Oxford Street, W.C.1.

REPRESENTATIVES wanted on commission to call on retail chemist trade for firm marketing a nationally advertised product. Area Lancashire, Cheshire, North Wales, State age, experience. Write 120/799, C. & D. Office.

ROCHE PRODUCTS LIMITED require three qualified pharmacists to call on the medical profession in the following areas: 1, East Midland, Nottinghamshire, Derbyshire, Leicestershire, Lincs.; 2, South Wales, Gloucestershire; 3, Oxfordshire, Buckinghamshire, Berkshire, Bedfordshire and part of Hampshire. Particulars of education, experience, etc., to Broadwater Road, Welwyn Garden City.

SELLING Agents needed for well-known Toilet Lines. Calling on chemists only in the North of England, Scotland. Write age, references to United Chemists Supplies, 110 Donegall Street, Belfast, Northern Ireland.

SENIOR Sales correspondent, preferably qualified, for sales department of well-known manufacturers of ethical pharmaceutical specialities. Previous experience an advantage, but not essential. Full particulars of education, experience. and salary expected to 119/789, C. & D. Office.

SMALL but old established sundries house require well connected representative (North of Thames and/or Provinces) to carry as additional line a large range of Flapjacks on a liberal commission basis with a view to fuller representation at a later date. Write giving full particulars to Box 121/853, C. & D. Office.

SUPERVISOR (woman) required to take charge of the packing of pharmaceutical preparations. Applicants must have had experience in packaging and be good disciplinarians. Applications, stating experience, should be sent to the Secretary, Genatosan, Ltd., Loughborough, Leics.

TABLET Maker required by manufacturing chemists, South Wales; 5-day week. Applicants must have had first-class experience in all tablet manufacture, also sugar- and chocolate-coating, and thoroughly understand rotary machines and their maintenance. Details of salary, etc., to 115/646, C. & D. Office.

TECHNICAL Assistant required by works manager in complete charge of factory employing about 2,000 people in the neighbourhood of London on the manufacture of chemicals and on packaging operations. Remuneration up to £900 per annum, dependent upon qualifications and experience. Applicants should preferably be between 30-35, have an engineering or chemical engineering qualification and have had sound technical experience in a comparable works. The person appointed must be capable of undertaking full responsibility for assignments given him by the works manager. Applications should give full details and be addressed to 120/822, C. & D. Office.

TRAVELLERS' Vacancies. Salesmen with experience in calling upon hairdressers and chemists, who are interested in commencing employment on a commission basis only, and need not solely represent the advertisers, are invited to send in applications, stating age, experience and area preferred. The lines we manufacture or carry stocks of apertain to permanent waving, sundry raw materials for the manufacture of perfumery, etc., and miscellaneous sundries. Write 120/807, C. & D. Office.

TWO Qualified Technical Advisers required by well-known firm of manufacturing chemists to call on medical profession in Bedfordshire, Buckinghamshire, Hampshire, South Wales and Gloucestershire. Particulars of education and experience, etc., to 118/722, C. & D. Office.

UNQUALIFIED Assistants wanted for process work in fine chemical works in Surrey district. Applicants should preferably have had wholesale or manufacturing experience but this is not absolutely essential if adaptable and willing to learn. Good opportunity for a few young men wishing to enter the manufacturing field. Apply 120/821, C. & D. Office.

VACANCIES exist for Pharmacists or Chemists with a West London firm of manufacturing chemists. The positions are permanent ones and show excellent prospects for capable men. The vacancies are in the production department and future promotion and salary increases will depend upon ability. Salary £400-550, according to experience. 118/727, C. & D. Office.

WANTED, Chemist with pharmaceutical qualifications and manufacturing experience to take charge of production. Excellent prospects for live man with ideas. Apply Box 121/852.

WELL introduced Sales Representative required for high-grade luxury toilet preparations (nationally advertised), to be carried as additional line on commission basis; to call on chemists, hairdressers and departmental stores for various provincial areas. Give references in first letter and name present lines carried. 114/612, C. & D. Office.

WELL-KNOWN manufacturing chemists, Manchester, require experienced pharmaceutical tablet maker for all grades of medicinal tablets. Good prospects. State full details. Box 121/835, C. & D. Office.

WORKS Chemist required by Manufacturing Chemists for supervision of processes and assay of drugs. Registered pharmacist, M.P.S., F.I.C. or A.I.C. qualifications essential. Permanent progressive position. Excellent prospects. Write 119/177, C. & D. Office.

WORKS Manager required, preferably with B.Pharm. or Ph.C. qualification. Experience in pill and tablet manufacture desirable but not essential. Position offers scope for initiative and ability, and is progressive and permanent. Write, Matthews & Wilson, Ltd., 6 & 8, Cole Street, S.E.1.

YOUNG Assistant Production Manager required for factory manufacturing and packaging proprietary branded products in West London. Applicants must have a chemical qualification, also a knowledge of chemical engineering would be an advantage. Ability to control both male and female staff is essential and preference will be given to applicants with previous experience in packaging products on conveyor tables. Commencing salary £550. 118/726, C. & D. Office.

CLERICAL

AN efficient Junior Shorthand Typist required by Morgan Brothers (Publishers), Ltd., 28 Essex Street, Strand, W.C.2. Applications, stating age, experience and salary required, should be addressed to the Staff Director.

OFFICE Boy required, about 16 years of age. Write Staff Director, Morgan Brothers (Publishers), Ltd., 28 Essex Street, Strand, London, W.C.2.

SECRETARY Shorthand Typist required by Director of Chemical Manufacturing Company for permanency. Willing to take responsibility. Interesting work connected with scientific agriculture. Write stating age, education, experience and salary required to Bayer Products, Ltd. (Agricultural Dept.), Africa House, Kingsway, W.C.2.

SECRETARY Shorthand Typist required for works manager of West London firm of manufacturing chemists. A knowledge of the technical terms applicable to this work is necessary. Hours 9.0 a.m. to 5.30 p.m.—five-day week. Write, stating age, experience and salary required, to 118/728, C. & D. Office.

WHOLESALE (OVERSEAS)

E. M. DE SOUZA & CO., P.O. Box 134, Rangoon, Burma, require unmarried British qualified chemists, with either retail or manufacturing experience. First contract of four years' duration, provides furnished quarters, board and attendance, plus commencing salary of £400 per annum, rising £25 per year. Six months' leave on full pay. Passages both ways. Please apply by Airmail direct.

MALAYA. Applications are invited for appointment as qualified assistant to important wholesale and retail chemists in Malaya. Four years' agreement with good terms and passage paid. Applicants should be pharmacists, single and under 28 years old. Fullest details available on application to Mr. W. Brown, 3 Scotch Common, London, W.13.

QUALIFIED Chemist required for departmental store in Ceylon. Age 25 to 35. Four years' agreement. Salary £500 per annum rising to £575. Passage paid. Write giving full details as to age, experience, etc., to Box B 281, c/o Street's, 110 Old Broad Street, E.C.2.

QUALIFIED Chemist, preferably single, required by wholesale chemists in South Africa; two-year contract: salary £500 to £600 per annum. Passage paid to South Africa. Any active service disabilities no disadvantage provided that health is good. Please give full details of past experience. 120/817, C. & D. Office.

SITUATIONS WANTED

2/6 for 18 words or less, 1d. for every additional word

RETAIL (HOME)

LADY, qualified, registered M.P.S., semi-retired, desires post for part time with light duties. 121/828, C. & D. Office.

TORBAY Area. Pharmacist (32), married, experienced manager, requires position. Keen business man, particularly interested buying, display, photography. Living accommodation not required. Please state approximate salary offered. Box 121/847, C. & D. Office.

UNQUALIFIED; 40 years' experience all-round; West End, etc. Light post or manage drug store. Little, 44a, The Grove, Isleworth, Middx.

LOCUMS SEEKING ENGAGEMENTS

LOCUM, disengaged September 23; assist or manage, any period or district. Thoroughly competent. Reliable, highest references, Terms moderate. Bishop, 23 Kirtleton Avenue, Weymouth.

QUALIFIED Lady (M.P.S.), experienced, desires locum work in London. No company work. Box 121/839, C. & D. Office.

WHOLESALE

EX R.A.F. Sgt. desires representative position (experienced). Sussex area. Resident Shoreham. 121/829, C. & D. Office.

GENERAL Sales Manager desires change, present employed with company marketing nationally advertised products, both home and export, capable administrator, experienced, sales control, marketing, budgetary. Known throughout Great Britain to wholesale, multiple and store buyers. 120/802, C. & D. Office.

PHARMACIST (32), car owner, seeks position London or S.W. England. 14 years' varied pharmaceutical experience, presentable, adaptable and efficient. Representation or any other post offering prospects. Box 121/848, C. & D. Office.

REPRESENTATIVE requires position with reputable house. Fifteen years' sales experience of chemist and toilet preparations. Southern or Eastern Counties. Well introduced. 121/834, C. & D. Office.

SALES Executive (M.S.M.A.), first-class administrator and organiser desires change. London appointment preferred. Enquiries invited. 119/767, C. & D. Office.

SOUTHERN Coastal Counties. Agency required. genuine chemists' proposition. Advertiser sound chemists' connection, effective salesman, conscientious service assured. 120/794, C. & D. Office.

WELL-KNOWN representative, strong and active connection part London, Kent, Surrey, Sussex, requires sole representation or quality lines on commission basis. Highest references. 121/832, C. & D. Office.

APPOINTMENTS

ASSISTANT PHARMACIST reqd. by MIDDLESEX COUNTY COUNCIL at NORTH MIDDLESEX COUNTY HOSPITAL, Edmonton, N.18. Applications invited from Registered Pharmacists. Salary as recommended by Joint Negotiating Committee on Salaries and Wages (Hosp. Staffs); minimum commencing salary £320 p.a. inclusive, by annual increments to £400 p.a. Previous experience as assistant pharmacists may be taken into consideration in determining commencing salary. Recently qualified pharmacists considered. Whole-time, established and pensionable, subject to medical examination. Application stating age, qualis., exper., enclosing copies of up to three recent testimonials to MEDICAL DIRECTOR, of Hospital. Application forms not provided. (A.331).

ASSISTANT PHARMACIST required by MIDDLESEX COUNTY COUNCIL at HAREFIELD COUNTY HOSPITAL, Harefield, Mx. Applications invited from Registered Pharmacists. Salary as recommended by Joint Negotiating Committee on Salaries and Wages (Hosp. Staffs); minimum commencing salary £320 p.a. inclusive; by annual increments up to £400 p.a. Previous experience as assistant pharmacist may be taken into consideration in determining commencing salary. Whole-time, established and pensionable, subject to medical examination. Recently qualified pharmacists considered. Application stating age, quals., exper., enclosing copies of up to 3 recent testimonials, to MEDICAL DIRECTOR, of Hospital. Application forms not provided. Closing date 28th September, 1946.

FIRST or SENIOR ASSISTANT PHARMACIST required, male or female, must have had recent Hospital experience, with M.P.S. or higher qualification. Salary according to the recommendations of the Joint Negotiating Committee (Hospital Staffs), viz., £365 per annum, rising by annual increments of £15 to £440. F.S.S.N.H.O. (C) in force.
Applications, with copies of three testimonials, should be made to the Secretary-Superintendent, Royal Gwent Hospital, Newport, Mon., before 1st October, 1946, from whom full particulars can be obtained.

RUNWELL HOSPITAL, NEAR WICKFORD, ESSEX

SENIOR ASSISTANT PHARMACIST reqd. at the above mental hospital. Salary £365 per annum rising by five annual increments of £15 to a maximum of £440 per annum, less £20 per annum if emoluments of lunch and tea are taken. Temporary accommodation in the Hospital would be available for a single person if required. The appointment is subject to the provisions of the Asylums Officers' Superannuation Act, 1909, and to the Committee's Sick Pay Regulations. Applications stating age, experience and qualifications, with copies of three recent testimonials, to the Physician Superintendent, as soon as possible.

LOCUM PHARMACIST. Supervision and light administrative part time duties (about 30 hours weekly) required immediately for one month—suit elderly pharmacist. Salary for full week 8 guineas (pro rata for part time). Also LOCUM ASSISTANT (A.H. Diploma) from September 16th to 28th (or nearest dates). Lunch and tea provided. No Sunday duties. Please state salary to Secretary, West Kent General Hospital, Maidstone.

BUSINESS OPPORTUNITIES

12/6 for 36 words or less, 3d. for every additional word

ADVICE on Export. Perfumery Manufacturers with first-class export connection offer good rent and if required will show how to develop export business in exchange for floor-space (2,000 ft. minimum) wanted temporarily London area. 119/783, C. & D. Office.

COMPANY with several factories surplus to requirements would like to hear from inventors, established manufacturing concerns and others who are prevented from producing by lack of factory space, labour or capital, with a view to outright purchase or co-operation. 120/812, C. & D. Office.

CONSULTANT Chemist is prepared to advise on preparation and formulæ of cosmetics and drugs. Box 121/854, C. & D. Office.

DO you lack a sound and original idea for consistently increasing your number of personal customers? As business conditions become normal, competition will increase. Gain a running start on your competitors by enquiring now for a sales productive innovation for chemists only which will raise the tone and individuality of any pharmacy. This idea is being forwarded to only one pharmacist per district. Make sure you are the one to benefit in your district. Box 121/840, C. & D. Office.

FIRM of manufacturing chemists wish to contact firm able to supply 11 m.m. lipstick containers. Metal or plastics. Push or screw ups. Box 121/845, C. & D. Office.

UNIQUE opportunity to acquire well-equipped modern factory, with chemical plant including large Cochran Boiler, three large vats, moving belt dryer, tanks, etc. Covered floor area 9,000 sq. ft. Uncovered area 2,000 sq. ft. Subject to purchase of plant on taking over lease. Box 121/836, C. & D. Office.

WANTED. New Ideas. Firm with large sales organisation looking for new lines for distribution. Would be prepared to finance good and novel ideas. 121/830, C. & D. Office.

BUSINESSES WANTED

7/6 for 40 words or less, 2d. for every additional word.

MANUFACTURERS require to purchase factory containing 20,000 sq. ft. or upwards. Immediate inspection will be made by Purchaser's Surveyor, C. I. Silver, 80 Duke Street, W.1 (Mayfair 2201). No commission is required.

BUSINESSES FOR DISPOSAL

7/6 for 40 words or less, 2d. for every additional word.

BOURNEMOUTH, West Southbourne District. Old established chemist business for sale. Freehold corner premises on main business thoroughfare, consisting of double-fronted shop with living room, kitchen, scullery, etc., in rear and four bedrooms, bathroom, etc., over. Frontage 50 ft. allowing for extension to present shop or erection of a lock-up shop. Return frontage of about 110 ft. Possession of the whole. Price £9,000 for freehold property and goodwill. Stock at valuation. Further particulars of Fox & Sons, 6 Southbourne Grove, West Southbourne, Bournemouth.

FOR SALE (Rugby, Warwickshire), Freehold Shop Premises. Valuable site. At present ladies' hairdressers. Good position for adding chemist or other business. 120/792, C. & D. Office.

FOR SALE, Sussex coast, freehold, chemist's double-fronted shop and Post Office. Temp. drug store. No opposition, growing district. Stock approx. £700. Good house, 5 rooms, 2 lav., bath, h. & c., elec. Large garage, garden. Write Box 121/849, C. & D. Office.

AGENCIES

12/6 for 36 words or less, 3d. for every additional word.

LARGE Canadian Sales Agency, 14 distributing warehouses, coast-to-coast sales coverage, wishes to represent manufacturers of pharmaceutical specialities, household medicinal products, toilet sundries, etc. Write Laurentian Agencies, 429, St. Jean Baptist Street, Montreal, P.Q., Canada.

LIVE Agents required to sell to their existing clientele superior packed aspirin tablets 2d. line to the trade. Good commission. Enquiries: Liss Brothers, Gillespie Road, London, N.5.

MANUFACTURING and wholesale chemists with 3,000 live accounts (small shopkeepers) within a radius of 100 miles Manchester, desire additional lines or agencies, 121/827, C. & D. Office.

MANUFACTURER of goods sold by chemists, stores and chiropodists, seeks contact with selling organisation covering Great Britain, Scotland and Northern Ireland. Packs and Trade Marks are reasonably well known, but production was small during the war due to complete destruction by enemy action. Products call for thoughtful salesmanship by men accustomed to offering high quality goods, and long term policy only should be considered. 120/810, C. & D. Office.

REPRESENTATIVE agent for chemists' sundries, excellent connection calling regularly chemists, druggists, dept. stores, etc. in London, Surrey, Sussex, Kent, requires an additional good line. Box 121/841, C. & D. Office.

TOILET Preparations manufacturers, established over 100 years offer exclusive lines to established representatives calling on chemists in London and Home Counties. Lloyd's Euxesis, Tenterden, Kent.

WANTED

7/6 for 36 words or less, 2d. for every additional word

A GOOD price offered for Cameras, Enlargers and all Photographic Apparatus, Exposure Meters, Tripods, good Binoculars, Microscopes, Cine-Cameras and Projectors, prompt cash. Wallace Heaton, Ltd., 127 New Bond Street, London, W.1.

ACTUAL User would appreciate supplies of Vanalin. 120/806, C. & D. Office.

AUTOMATIC Cream Filler wanted at once; big price paid. Shavex Co., Bavaria Road, Holloway, N.19.

EDIBLE Sheet and Powdered Gelatin required in large quantities. 965/970, C. & D. Office.

LANOLINE. Advertisers are willing to make good offers for unwanted parcels of Lanoline, B.P. or Commercial. Please send full particulars and details to 121/831, C. & D. Office.

LEWIS'S, LTD., Birmingham, urgently require two carboys for display in their chemist's shop. Particulars to Store Equipment Manager, Lewis's, Ltd., Birmingham.

MIXING and kneading machine wanted, preferably jacketed, about 3 cubic feet capacity. D.F., Ltd., 49 Grayling Road, London, N.16.

REQUIRED. Large quantities of liquorice block. State price and delivery for cash. 121/825, C. & D. Office.

ROSE OTTO. Genuine pre-war Otto of Rose wanted in large or small quantities. Best prices paid. Picot, Ltd., Perfumers, 191 Hammersmith Road, W.6. Riverside 3336.

STEARIC Acid Triple Pressed required in large quantities. 965/969, C. & D. Office.

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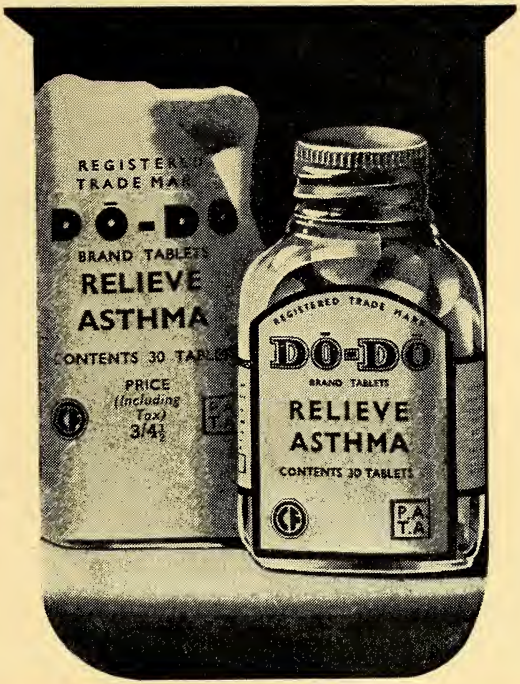

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